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**U.S. Department of Agriculture**

# **1977 BUDGET EXPLANATORY NOTES**

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**FOREST SERVICE**





# TABLE OF CONTENTS

	Page
<u>Activities, Major</u> .....	Fig. 1
<u>Acquisition of Lands for National Forests:</u>	
Cache National Forest (Utah) .....	193
Klamath Indian Lands .....	194
To Complete Land Exchanges .....	170
Special Acts (California, Nevada, and Utah) .....	163
Superior National Forest (Minnesota) .....	192
Uinta National Forest (Utah) .....	190
Wasatch National Forest (Utah) .....	191
Weeks Act (various States) .....	138
<u>Administrative Provisions, Changes in Language</u> .....	203
<u>Aircraft</u> .....	206
<u>Appropriations and Receipts, Summary of</u> .....	13
<u>Assistance to States for Tree Planting</u> .....	173
<u>Brush Disposal, Expenses</u> .....	210
<u>Consolidated Working Fund</u> .....	199
<u>Construction and Land Acquisition</u> .....	133
Activity Structure change .....	142
<u>Construction and Operation of Recreation Facilities</u> .....	179
<u>Cooperation, State and Private Forestry</u> (see State and Private Forestry Cooperation)	
<u>Cooperative Range Improvements</u> .....	131
<u>Cooperative Work, Forest Service</u> (trust fund) .....	229
<u>Economic Importance of National Forests and National Grasslands</u> .....	11
<u>Forest Land Management:</u>	
Activity Structure change .....	69
Cooperative Law Enforcement .....	66
Disease Management, Forest .....	61
Fighting Forest Fires .....	59
Fire Protection .....	50
General Land Management Activities:	
Employees' Compensation Fund, Payments to .....	58
Geometronics .....	55
Land Classification, Adjustments and Surveys .....	53
Maintenance of Improvements for Fire and General Purposes (including Communications) .....	56
Special Uses--Non-recreation .....	57
Increases and Decreases, Summary of .....	21
Insect Management, Forest .....	61
Minerals Area Management .....	47
Project Statement .....	25
Rangeland Management .....	41
Recreation Use .....	34
Reforestation and Timber Stand Improvement .....	31
Soil and Water Management .....	43
Timber Sales Administration and Management .....	27
Wildlife and Fish Habitat Management .....	39
<u>Forest and Rangeland Renewable Resources Planning Act</u> .....	4



	<u>Page</u>
<u>Forest Protection and Utilization:</u>	
<u>Program and Financing Schedule</u> .....	19
<u>Geographic Breakdown of Obligations:</u>	
<u>Acquisition of Lands for National Forests, Weeks Act</u> .....	141
Cooperative Law Enforcement .....	67
Fighting Forest Fires .....	60
Forest Research .....	76
Insect and Disease Management, Forest .....	65
National Forest Protection and Management .....	26
Roads and Trails, Forest .....	154
State and Private Forestry Cooperation .....	112
<u>Job Corps</u> .....	16
<u>Land Acquisition (see Acquisition of Lands for National Forests and Construction and Land Acquisition)</u>	
<u>Language Change:</u> <u>Acquisition of Lands, Special Acts</u> .....	165
<u>Administrative Provisions</u> .....	203
<u>Forest Land Management</u> .....	68
<u>Forest Roads and Trails</u> .....	155
<u>Law Enforcement, Cooperative</u> .....	66
<u>Licensee Programs</u> .....	212
<u>Map of National Forest System and Related Data</u> .....	Fig. 2
<u>Motor Vehicles, Passenger</u> .....	203
<u>Office of Economic Opportunity (see Job Corps)</u>	
<u>Organizational Structure</u> .....	12
<u>Payments to:</u>	
<u>Arizona and New Mexico, School Funds</u> .....	220
<u>Counties, National Grasslands</u> .....	219
<u>Minnesota (Cook, Lake, and St. Louis Counties) from the National Forests Fund</u> .....	218
<u>States, National Forests Fund</u> .....	221
<u>Permanent Appropriations</u> .....	209
<u>Positions, Detail of Permanent</u> .....	17
<u>Receipts, Summary of Appropriations and</u> .....	13
<u>Research, Forest:</u>	
Activity Structure change .....	105
Construction of Facilities .....	137
Economics and Marketing .....	102
Engineering .....	98
Fire and Atmospheric Sciences .....	90
Increases and Decreases, Summary of .....	74
Insects and Disease .....	92
Products Utilization .....	95
Project Statement .....	75
Recreation, Forest .....	86
Resources Evaluation, Renewable .....	100
Surface Environment and Mining .....	88
Timber Management, Trees and .....	79
Watershed Management, Forest .....	82



	<u>Page</u>
Wildlife, Range and Fish Habitat .....	84
<u>Restoration of Forest Lands and Improvements</u> .....	213
<u>Roads and Trails, Forest</u> .....	148
<u>Roads and Trails for States, National Forests Fund</u> .....	209
<u>Role of the Forest Service</u> .....	1
<u>Smokey Bear</u> (see Licensee Programs)	
<u>State and Private Forestry Cooperation:</u>	
Forest Fire Control .....	113
Forest Management and Processing .....	118
Forest Tree Planting .....	116
General Forestry Assistance .....	124
Increases and Decreases, Summary of .....	110
Project Statement .....	111
<u>Trails and Roads, Forest</u> .....	148
<u>Trust Fund</u> .....	229
<u>Youth Conservation Corps</u> .....	184
<u>Vehicles</u> (see Motor Vehicles, Passenger)	
<u>Woodsy Owl</u> (see Licensee Programs)	
<u>Working Capital Fund</u> .....	223



## THE ROLE OF THE FOREST SERVICE

The Forest Service holds the Federal responsibility for national leadership in "forestry." <sup>1/</sup> That role includes participation in setting national priorities, formulating programs, and establishing Federal policies that relate to man and his natural environment, especially the forest-related environment.

Forests and forest-related environment include forests, rangeland, grassland, brushland, alpine areas, lakes, ponds, and streams and wildlife habitats. Forestry is the protection and management of this land and water and their natural resources for the many purposes of mankind.

Forests provide raw materials for basic necessities of life, as well as natural environments for many leisure and educational activities. The Forest Service seeks to attain a harmonious relationship between man and his natural environment.

In 1974 Congress provided the vehicle to appraise and respond to the national situation more effectively when it approved the Forest and Rangeland Renewable Resources Planning Act. This is the first budget proposal tailored to meet the requirements of that new Act.

## WHAT THE FOREST SERVICE DOES

In carrying out its national forestry leadership role, the Forest Service undertakes a great variety of activities. The major tasks include administration of the National Forest System, cooperative State and private forestry programs, forestry research programs and human and community development programs (Figure 1). Following is a brief description of each of these major responsibilities:

### National Forest System

The Forest Service administers 187 million acres of Federal land in 44 States, Puerto Rico and the Virgin Islands. The National Forest System (hereafter called National Forests) is composed of 155 National Forests, 19 National Grasslands, and 16 Land Utilization Projects (Figure 2).

They are operated under a multiple use land management concept designed to obtain sustained, long-term flows of goods and services. The various resource uses are harmonized and the relative public values of various possible resource uses are considered and management plans selected which best meet present and future needs of the American people. Activities are grouped in five areas of resource management:

Watersheds are managed to regulate streamflow, to control floods and erosion and to store water. Much of the Nation's water supply flows from the National Forests. Protection and improvement of the natural watersheds help to assure an adequate supply of pure water for the growing demands of agriculture, industry, and the American public.

Forage is managed to conserve the soil and vegetation while providing food and habitat for livestock and wildlife. Rangeland is also managed for its recreation, timber, and water resources.

Fish and wildlife habitat is managed to provide a healthy and productive place for native wildlife and fish species. A primary objective is to provide opportunities for sportsmen, bird and animal watchers, photographers and others to enjoy the fish and wildlife resources. Hunting and fishing in the National Forests are regulated by State laws, and projects for improving habitat are carried out cooperatively with State fish and game agencies.

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<sup>1/</sup> This responsibility is delegated to the Chief of the Forest Service under Administrative Regulations of the U.S. Department of Agriculture (7 CFR 2.60).





Recreation management is designed to best serve the steadily increasing numbers of Americans seeking relaxation in the outdoors. Although much of the enjoyment offered the public is afforded by the natural environment of the forest itself, facilities are provided for a broad range of recreational activities, such as camping, picnicking, boating, swimming, and winter sports. In addition, 93 percent of the National Wilderness Preservation System is in National Forests.

Timber is managed to produce a continuous flow of wood products in perpetuity. This sustained-yield principle, implemented by modern forestry techniques, helps to assure adequate present and future crops of high-quality timber. As timber stands are improved and growth increases, the annual harvests from the National Forests can be increased.

These five resource management activities and many other purposes must be served by appropriate facilities and services. Roads and trails must be built and maintained; pipeline and utility rights-of-way must be granted; permits for special uses must be issued; mining claims must be approved; and boundaries must be surveyed and administered. All must be harmonized with other uses to maintain the quality of the environment. Finally, the National Forests must be protected--from wildfire, harmful insects and diseases, law violators, and careless, wasteful users.

### State and Private Forestry

Through cooperative programs with State and local governments, forest industries and private landowners, the Forest Service helps to protect and manage 631 million acres of forest and associated watershed land. Technical and financial assistance is offered to improve fire, insect and disease control; to develop multiple use management for optimum potential of forest resources; to improve harvesting, processing and marketing of forest products; and to stimulate reforestation and timber stand improvement. Major program areas are:

Cooperative Forest Fire Control. All 50 States participating in this program are responsible for the manpower, equipment and organization required. The Forest Service provides coordination, and financial and technical assistance, including training of fire control personnel, development of equipment and rapid availability of research information.

Cooperative Forest Pest Action. Forty States now participate in this program to prevent, detect and evaluate insect and disease damage. Federal cost-sharing and technical assistance are made available to these States to suppress forest insect and disease outbreaks where warranted. The program also includes pest control activities on Federal lands.

Cooperative Forest Management and General Forestry Assistance. Technical assistance to private forest landowners, forest operators and processors, and public agencies, are provided to develop forest resources to their maximum potential consistent with wise conservation practices.

Cooperative Tree Seedling. The Forest Service cooperates with all States and the Virgin Islands in establishing seed orchards and forest shelterbelt plantings on State and privately-owned land.

Cooperative Watershed Planning and Development Programs. Under these programs, the Forest Service carries out the forestry aspects of the Department of Agriculture's watershed protection, flood prevention, and resource conservation and development actions. Watershed restoration and resource development work on State and private forest lands is handled by the State forestry agencies through cooperative agreements. The forestry aspects of comprehensive resource and river basin planning are provided by Forest Service people or by State forestry agencies through cooperative agreements.



## Forestry Research

The Forest Service carries on forestry research operation through eight regional experiment stations, the Forest Products Laboratory and the Institute of Tropical Forestry. Field and laboratory research is conducted at 84 locations throughout the United States. Outdoor laboratories in the form of 94 experimental forests and experimental ranges provide representative communities of plants and animals for manipulation and observation. The experimental stations solve regional natural resource problems, but much of their work has interregional, national and, often, international significance. Strong coordination and cooperation is emphasized among stations, with universities and other research organizations, and with land managers to solve urgent range and forest problems. The major areas of research are:

Forest and range management research which provides information on the establishment, improvement, and growth of trees, grasses, and other forest-related vegetation. This research also integrates recreation and esthetic objectives with multiple uses to improve livestock grazing management and wildlife and fish habitat.

Forest and range protection research studies ways of protecting forest resources from fire, insects, diseases, air pollution, and animal pests in ways that are not detrimental to forest ecosystems.

Forest products and engineering research provides new and more efficient processes for manufacturing wood products and systems for using wood products and for extending resource supplies. This research also develops new harvesting and transportation technology to support forest management and protection activities.

Forest resource economics research evaluates alternatives for utilizing and extending forest resources and improving marketing systems to lower costs. A continuing resource evaluation provides comprehensive information on the extent and condition of forest and rangeland and the outlook for future supplies and demands.

International forestry provides leadership, through cooperation and exchange, with forestry organizations and individuals of other countries.

## Human and Community Development Programs

The Forest Service participates in general cooperative manpower programs authorized by the Comprehensive Employment and Training Act of 1973 (87 Stat. 839) and the Youth Conservation Corps Act of 1971, as well as a number of programs for direct improvement of living conditions in communities and rural areas through technical forestry assistance.

Under the Comprehensive Employment and Training Act agreement, the Forest Service operates 17 Job Corps Civilian Conservation Centers to provide basic education and job training to disadvantaged youth. Other cooperative work training programs in which the Forest Service participates are Senior Community Services Employment Program (Older Americans), Neighborhood Youth Corps, College Work Study, and employment programs financed under CETA for which the Forest Service acts as host. The programs provide work and training to several thousand enrollees each year. In addition, the Forest Service is operating employment projects under Title X of the Public Works and Economic Development Act of 1965, in counties with a high unemployment rate. The Volunteers in the National Forests Act of 1972 provides for assistance in the protection and development of natural resources at nominal cost.

The Forest Service, in cooperation with the Department of the Interior, administers the Youth Conservation Corps program. YCC accomplishes needed conservation work on Federal land administered by the Secretaries of Agriculture and the Interior, and on other public lands through grants to States. It provides young men and women, 15-18 years of age, gainful summer employment and an opportunity to learn about their natural environment through actual field experience. During the summer of 1975, the Forest Service, the Department of the Interior, and States under the grant program operated over 400 camps in every State and territory.



All Forest Service activities seek to increase job opportunities and to raise standards of living under the Department of Agriculture rural development program. Related to this, in 1975, about 2,000 communities received assistance under the first year program of the Federal-State Rural Community Fire Protection program.

#### THE FOREST AND RANGELAND RENEWABLE RESOURCES PLANNING ACT

In 1974, Congress concluded that the Forest Service should be looking more actively toward the future--next year and even the next century. What will be the Nation's demands upon its renewable natural resources base and what can the Forest Service do to provide its share of those goods and services? The Forest and Rangeland Renewable Resources Planning Act (PL 93-378) provides the direction for the Forest Service to do so.

The Act contains two major requirements:

- (1) The Forest Service must periodically submit to Congress a Renewable Resources Assessment for all of America's forest and rangeland--public and private.
- (2) It must also, through the Secretary of Agriculture, recommend a long-range Renewable Resources Program limited specifically to Forest Service activities--research, State and private cooperation and the National Forest System.

The first assessment and program were developed on the basis of currently available information, programs, and data sources. Existing data and studies from many Federal and State agencies, as well as from the Forest Service, were used as the basis for the assessment. The Forest Service's Environmental Program for the Future, prepared in 1974, was the starting point for developing the program proposed.

The program as developed included the elements of an environmental impact statement patterned on the principles outlined in the National Environmental Policy Act. Six resource systems, covering the full range of Forest Service responsibilities, were used. The six systems are:

- Outdoor recreation and wilderness
- Wildlife and fish
- Range
- Timber
- Land and water
- Human and community development

The public was involved extensively in developing the assessment and the program. Broad public review occurred at four different stages. Several thousand documents and letters containing information and suggestions were received in the process. This informed-citizen response from every State in the Union was supplemented by testimony at 14 hearings, hundreds of briefings, workshops, and public meetings around the country. These responses were all given consideration and helped shape the final decisions of the Chief of the Forest Service and the Secretary of Agriculture.

Other tests--social, environmental and economic--were also applied to the eight possible alternative programs examined and the recommended program was created out of them. The environmental impact statement process was used to determine positive and negative environmental, social and economic effects.

Economic effectiveness was determined by measuring and comparing accumulated costs with estimated value of results, to determine that benefit values exceeded costs. Judgment was applied to the possible alternative directions and to the final product to assure logic and balance.

The Resources Planning Act process has now reached the stage where it can be related to the budget process. The fiscal year 1977 budget proposes the first year of the program called for by the Act.





It is consistent with the purpose of the Act of establishing a basic framework for development and consideration of annual appropriation requests related to the long-term goals and objectives which characterize effective forest and rangeland resources planning.

### Demands for Forest Resources

As Congress recognized in writing the Resources Planning Act, the basic step in creating a recommended program of Forest Service activities is the description of the present resource situation with projections of future demands for supplies of renewable resource products. This assessment, as intended by Congress, provides the factual basis for the program. It will be updated again in 1979 and then every decade thereafter. Some brief highlights of the assessment are described below:

#### Past Trends in Use

In response to past increases in population, economic activity and income, the demand for nearly all products of forest and rangelands, and the associated inland waters, has risen rapidly. The growth has been especially fast for some forms of outdoor recreation. For example, the number of households camping more than tripled between 1960 and 1973, rising from 4.3 million to 14.3 million. Increases for most other products were more modest but substantial. Between 1960 and 1970, for example, the days spent hunting and fishing rose from 563 million to 771 million, indicating an increase in demand of 37 percent. Timber consumption rose from a level of around 11.5 billion cubic feet in the early 1960's to nearly 14 billion cubic feet--up 22 percent.

#### Projected Demands

Projections of demand for forest, range and inland water products, based on assumed increases in population, economic activity, income, prices and the other determinants used in the assessment, show continued growth through the projection period. However, as indicated by the illustrative projections in the tabulation below, there are differences in the amount of increase.

<u>Product</u>	<u>Base Year</u>	<u>Projected increase in demand</u> (medium level--base year equals 100)		
		<u>1980</u>	<u>2000</u>	<u>2020</u>
Remote camping .....	1975	106	133	180
Birdwatching .....	1975	107	138	168
Small game hunting .....	1975	106	121	136
Fresh water fishing .....	1975	111	156	205
Forest-range grazing .....	1970	135	150	164
Timber .....	1970	131	173	219
Water (consumptive use) .....	1975	103	123	139

Although there are differences in projected growth in demand, the increases are substantially above the levels that can be supplied with present management programs and existing facilities. This means that the Nation is faced with the prospect of rising costs for products such as timber, forage, and water and intensifying competition for the available supplies of wildlife, fish and outdoor recreation.

#### The Land and Water Base

For example, there is a huge land and water base which can be used to meet demands. In 1970, 1.6 billion acres, some 69 percent of the Nation's area, were classified as forest and rangeland and inland water. About two-thirds of this area was in rangeland and noncommercial forest. These lands, chiefly used for grazing, include natural grasslands, savannas, shrublands, most deserts, tundra, coastal marshes, wet meadows and forested land, such as the pinyon-juniper forests of the southwest





that are incapable of producing crops of industrial wood. Another 500 million acres were commercial timberland, i.e., land that is capable of producing in excess of 20 cubic feet of industrial wood per acre a year in natural stands and not withdrawn for other uses. The remaining area--some 48 million acres--was classified as inland water and consisted of lakes, reservoirs and ponds over 40 acres in size (exclusive of the Great Lakes) and streams more than one-eighth mile in width.

About a third of the rangeland and noncommercial forest, 345 million acres, is in Alaska. Most of the remainder is in the States stretching westward from the Great Plains to the Pacific Coast.

Commercial timberlands are more widely distributed and, with the exception of the Great Plains and some of the Southwest, compose a significant part of the area of each State. However, nearly three-quarters of the area is in the humid eastern half of the country where it is about equally divided between the North and South. The one-quarter of the commercial timberland in the West is concentrated in the Pacific Pacific Coast States of Oregon, Washington, and California and the Rocky Mountain States of Montana, Idaho and Colorado.

The great bulk of the Nation's forest and rangeland in the contiguous States is in private ownerships. In 1970, the area in these ownerships, plus relatively small areas in State, county and municipal ownerships amounted to 825 million acres--about 70 percent of the forest and rangeland area.

Rangeland on which the grass form predominates is even more heavily concentrated in these ownerships. For example, in 1970, 99 percent of the prairie grasslands, 94 percent of the plains grasslands and 84 percent of the mountain grasslands were in non-Federal ownership, nearly all private.

In contrast, Federal ownership predominated on most of the rangeland shrub ecosystems; 82 percent of the sagebrush system and 70 percent of desert shrub were in Federal holdings. Federal ownership was also the dominant form on the non-commercial forest ecosystems--chaparral-mountain shrub and pinyon-juniper--in the contiguous States. It was also the dominant form in Alaska where in 1970 nearly all of the rangeland and noncommercial forest was Federally owned.

About 364 million acres, 73 percent of the Nation's commercial timberland, are in private ownerships. Much of this area is in highly productive sites and close to markets for timber products. These ownerships consequently have long been of major importance as a source of timber supplies for the wood-using industries. Nearly half of these timberlands are in the South and most of the remainder in the North.

The 136 million acres of commercial timberland in public ownership, largely Federal, are concentrated in the Rocky Mountains and Pacific Coast sections. Most are of relatively low site quality and located at higher elevations, but these forests nevertheless contain a substantial part of the Nation's timber inventory.

The productivity of the Nation's forest and rangelands varies widely as a result of differences in climate, soils, and elevation. In general, however, productivity is relatively low. For example, it is estimated that about a quarter of the rangeland areas in the contiguous States is in the lowest productivity class with another three-fifths in the moderately low class. A large proportion of the lands in these lower classes is in National Forest and other Federal ownership. Only 4 percent of the area was estimated to be in the high productivity class.

Nearly three-quarters of the rangeland was producing less than 60 percent of its potential in 1970. The largest proportion of lands in good condition was in the plains and prairie grasslands ecosystems.

More than a quarter of the commercial timberland is in the lowest site productivity class, i.e., land capable of producing 20 to 50 cubic feet of timber per acre per year in fully stocked natural stands. This class of land provides limited response to timber management activities but often yields important values for grazing, recreation, or other non-timber uses. These lower-site lands are mostly in eastern areas such as the Appalachians, and in the Rocky Mountains where this site class makes up about half of the commercial area.



Nearly two-thirds of the total area of commercial timberland is in the 50 to 120 cubic foot productivity range. About half of this acreage is in the South.

The remaining 10 percent of the commercial area is in the highest productivity class--lands capable of producing 120 cubic feet or more of timber per acre per year. Nearly half of this highly productive land is in the Pacific Coast section, largely supporting Douglas-fir, hemlock-sitka spruce, and western hardwoods.

The potential yields indicated by site productivity classifications are generally not realized, even though practically all commercial timberland in 1970 was occupied to some extent by some type of tree cover and many forests were fully stocked or even overstocked in terms of all live trees.

#### Opportunities for Increasing Supplies

In time, and with additional investments in research, management programs and physical facilities, the output of nearly all forest, range and inland water products can be greatly increased and the higher levels of output sustained in the future.

For example, the 1.6 billion acres of forest and rangeland, and the associated inland water, have the physical capacity to supply sites for picnicking, camping, hiking, skiing, birdwatching, swimming, and most other types of outdoor recreation that is far in excess of projected increases in demand. These lands, under proper management, also have the capacity to support much larger numbers of most species of wildlife, including those species in demand by hunters and fishermen, and non-consumptive users such as birdwatchers and photographers. Forage production from range can be nearly tripled and timber growth on commercial timberland more than doubled. Water supplies in deficient areas can also be substantially increased.

In addition to increasing supplies, it is possible to greatly extend the usable supplies of most forest and range products by improvements in the efficiency of utilization.

The most promising opportunities to increase and extend supplies include:

Outdoor recreation.--Projected increases in demands for nearly all types of outdoor recreation can be met by:

- Constructing additional facilities such as roads, trails, campgrounds, picnic areas, and boat ramps.
- Improving public access to forest and rangeland suitable for outdoor recreation, especially near urban areas where nearly all land is privately owned.
- Integrating all outdoor recreation uses, including scenic values, into land use planning and management.
- Improving maintenance of existing facilities and providing for adequate pollution abatement.

Wilderness.--The supply of wilderness can be increased by:

- Setting aside additional forest and rangeland areas as wilderness.

Part of the prospective growth in demand for the use of wilderness for outdoor recreation can be met by:

- Developing means to spread geographically and through time recreation use on established wildernesses.

Implementing management programs on nonwilderness lands to meet the needs of people who do not require wilderness to satisfy recreation demands.



Wildlife.--The present wildlife and fish situation can be improved:

- Populations of most wildlife species can be increased by expanding food supplies, improving cover and minimizing the adverse impacts from the use of the land and water base for other purposes. At this time, much can be accomplished by effectively integrating wildlife needs into the management of the resource base for other products such as forage and timber.
- Waterfowl populations can be increased by expanding wetlands nesting habitats through fee purchase of key tracts and wetlands easements in the United States and Canada, and preserving and enhancing migration and wintering habitats.
- Fish populations can be increased by additional stocking of desirable species; improving habitat, and especially water quality, through control of various types of pollution and removing obstacles to migration by eliminating barriers and providing ladders or other passageways in water resource projects.
- Part of the prospective increases in demand for wildlife, for both consumptive and nonconsumptive uses, can be met by providing access through the construction of trails, boat landings and other facilities to places where the existing resource is under-utilized, and spreading use through time and in developed areas where the wildlife resource can support additional use.
- Endangered and threatened species require special measures. For some species, notably those most restricted and isolated, habitat must be preserved and protected from further encroachment. It may be possible to increase the populations of some species by transplanting them to unoccupied or newly developed habitat.

Forest-range forage.--The supply of forest-range forage can be increased and extended by:

- Obtaining better and more uniform utilization of existing forage by implementation of improved grazing systems, including better livestock distribution, building needed fences, developing needed sources of water, and using the proper kind and class of livestock for the range.
- Improving the growth and quality of forage by seeding of improved native and introduced forage species, control of undesirable plants, converting marginal forest or undesirable shrub stands to grasslands, use of managed fire, fertilization, and waterspreading and pitting.
- Coordinating forest-range management activities with other resource uses.
- Reducing loss of livestock and forest-range forage by improved control of wildfire, damaging range insects and diseases, predators, and livestock diseases and parasites.

Timber.--Timber supplies can be increased and extended by:

- More intensive management of all classes of commercial timberland by such measures as timber stand improvement; commercial thinning and salvage; reforestation; better protection against fire, insects, diseases and other destructive agents; road construction, fertilization; and the use of genetically improved planting stock. More complete utilization of logging residues, plant residues and trees lost by mortality; and greater use of recycled fibers.
- Greater use of modern equipment and new technology to increase output of lumber and other products from available log supplies and raise the efficiency with which products are used in construction and manufacturing.





Water.--Water supplies can be increased in a given area by interregional or inter-basin transfer, desalting and precipitation modification.

Water supplies can be extended by:

- More intensive watershed protection and management of forest and rangelands to enhance the natural recharge of groundwater and improve timing of flows by storage and/or vegetation modification.
- Improving the efficiency of irrigation systems by reducing transmission losses, phreatophyte management, and more efficient application methods.
- Improving the efficiency of central supply systems by elimination of leaks in transmission systems, use of water meters with charges according to use and implementation of water saving technology such as more efficient plumbing fixtures and appliances.
- Pricing to encourage more efficient use of water.

General opportunities to increase and extend supplies.--Most of the Nation's forest and rangeland, and inland water, is in private ownership. A variety of studies has shown that these owners have diverse objectives, widely different characteristics and attitudes, a limited knowledge of existing management opportunities and varying willingness and capacity to make investments which will increase and extend supplies of forest and range products.

Substantial increases in the supplies of most forest and range products from these ownerships can be achieved by such measures as cost sharing programs to help finance management practices and technical assistances and educational programs to show landowners how to develop and manage forest and range resources.

Much can be done to increase and extend supplies of forest and range products by better use of existing technology. However, investments in management practices and facilities could be made more efficient by expanding research. More information is needed, for example, about physical responses in terms of changes in wildlife populations and in forage and timber growth to various kinds of management practices. More data are also needed on the cost of management practices, the prices and uses of forest and range products, and the physical aspects of the forest and range resource. Research on ways of using forest and rangeland, and inland water, which will minimize impacts on the environment is becoming increasingly urgent.





#### ECONOMIC IMPORTANCE OF NATIONAL FORESTS AND NATIONAL GRASSLANDS

- (1) The forests and grasslands provide opportunities for healthful outdoor recreation, with a minimum of restrictions. In 1974, the number of recreation visitor-days (each equivalent to one person spending 12 hours) was almost 193 million, more than one-half of all the Federal outdoor recreation and more than twice that provided by any other agency. Outdoor recreation is an important source of supplementary income in most areas, as well as providing recreational opportunities for local residents. In some relatively depressed communities, it has become vitally important.
- (2) More than 93 percent of the total National Wilderness Preservation System is National Forest System land. The 87 wildernesses contain 11.9 million acres.
- (3) National Forests provide habitat for much of the Nation's fish and wildlife, including about 50 percent of the Nation's big game. Habitat for 36 species of endangered fish and wildlife is on these lands. Hunters, fishermen and appreciative wildlife users (photographers and birdwatchers) constitute an important supplementary source of income for numerous communities near these lands.
- (4) Some 3.2 million head of domestic livestock (mature animals) are grazed on National Forests and Grasslands, assisting about 20,000 rural families by providing supplementary feed for the animals.
- (5) The National Forests supplied 9.2 billion board feet of timber in fiscal year 1975 to the Nation's forest products requirements. Dependence of the forest products industries on National Forest timber continues to increase as a result of depletion of good quality timber on private lands. Without this supply, the national demand for wood and fiber products could not be met at reasonable prices.
- (6) About 390 million acre feet of high quality water are provided annually from National Forest System lands. Most Western cities and many in the East benefit from National Forest protection of municipal supplies. About 20 million acres of Western lands are irrigated by water from National Forests.



- (7) About \$300 million worth of minerals, oil, and gas are extracted annually from National Forest lands.
- (8) These lands produced a cash income in fiscal year 1975 of \$373.1 million. Approximately 65 percent of this amount was credited to the general fund in the Federal treasury (miscellaneous receipts). The remainder was distributed in accordance with special acts of Congress, including 25 percent of receipts to States or counties in which lands are located.
- (9) The area within National Forest and National Grassland boundaries is equivalent to about 10 percent of the area of the United States. About 24 percent of this land is within areas now experiencing economic distress. Proper management, development and utilization of these lands are important factors in permanent improvement of these local economies. Millions of people who live in and near the National Forests are supported in whole or in part through the economic development based on the forests and their resources.
- (10) The increased demands for recreation and commodity products greatly accelerate demand for special uses of forest land. The Forest Service administers 74,000 special permits for such things as powerlines, pipelines, microwave towers, ski areas, waterpower facilities, and many others.

#### ORGANIZATIONAL STRUCTURE

The Forest Service maintains its central office in Washington with program activities decentralized to 9 regional offices, 123 forest supervisors' offices, 674 district rangers' offices, 2 State and private forestry area offices, 8 forest and range experiment stations, the Institute of Tropical Forestry, and the Forest Products Laboratory. Location of headquarters offices:

Regional offices:	Missoula, Montana	Portland, Oregon
	Denver, Colorado	Atlanta, Georgia
	Albuquerque, New Mexico	Milwaukee, Wisconsin
	Ogden, Utah	Juneau, Alaska
	San Francisco, California	

State and private forestry area offices: Upper Darby, Pennsylvania  
Atlanta, Georgia

Experiment stations:	Ogden, Utah	Berkeley, California
	St. Paul, Minnesota	Fort Collins, Colorado
	Upper Darby, Pennsylvania	Asheville, North Carolina
	Portland, Oregon	New Orleans, Louisiana

Forest Products Laboratory: Madison, Wisconsin

Institute of Tropical Forestry: Rio Piedras, Puerto Rico

National Forest, National Grasslands, and Utilization lands administered by the Forest Service are located in all States except the following six:

Delaware	Massachusetts
Hawaii	New Jersey
Maryland	Rhode Island



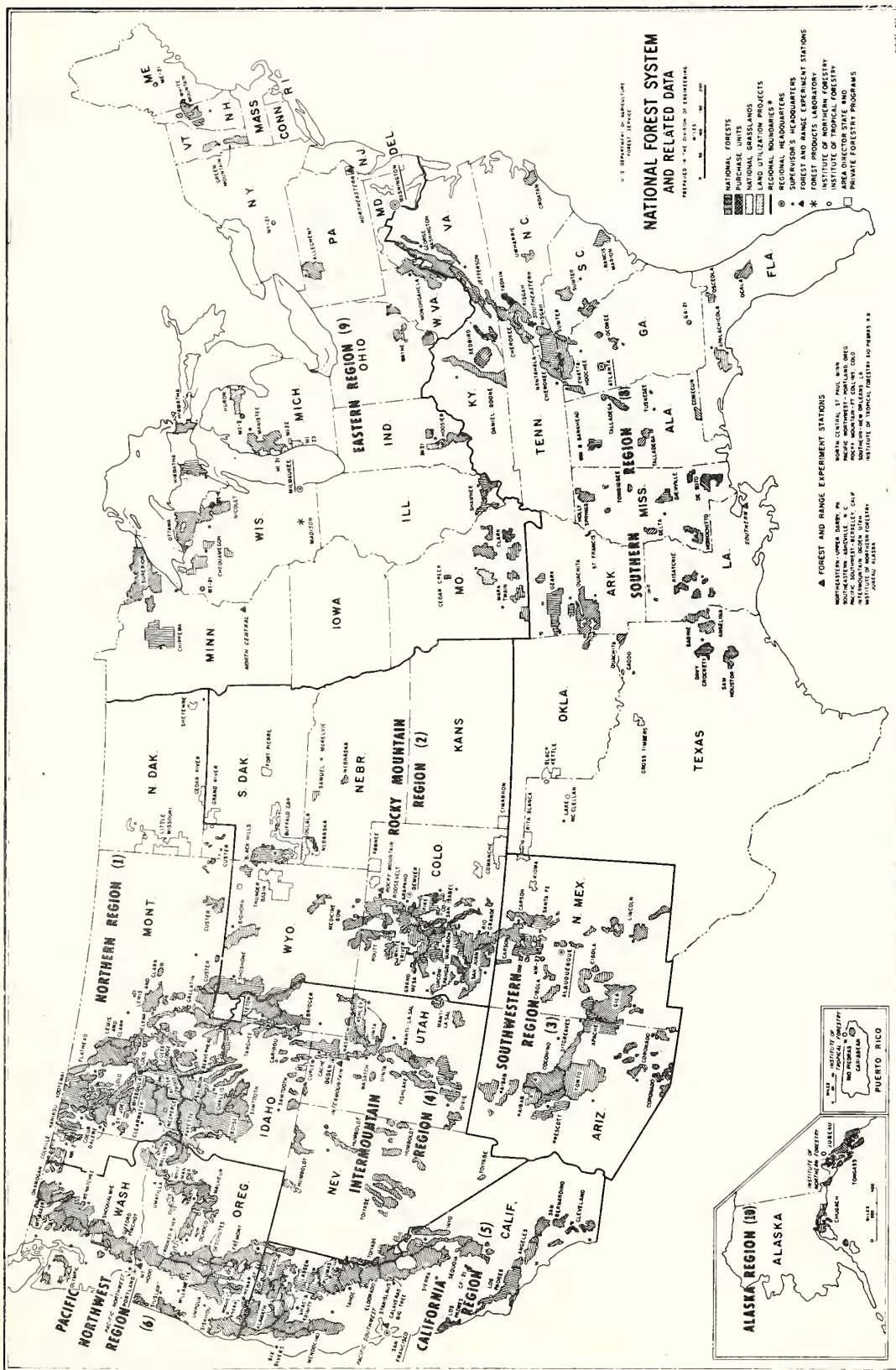


Figure 2



Summary of Estimated Appropriations and Receipts

Item	1/ Available 1975	2/ Estimated available 1976	Estimated available : transition : quarter 2/	Budget estimate 1977	Change 1977 over 1976
<u>Appropriated Funds:</u>					
Forest protection and utilization:					
Forest land management 3/	\$429,362,000:	\$365,821,000:	\$117,000,000:	\$388,621,000:	+\$22,800,000
Forest research	77,612,000:	80,355,000:	21,737,000:	84,691,000:	+4,336,000
State and pri- vate forestry cooperation .	34,784,000:	32,994,000:	9,802,000:	24,800,000:	-8,194,000
Total, Forest protection and utili- zation ....	541,758,000:	479,170,000:	148,539,000:	498,112,000:	+18,942,000
Construction and land acqui- sition 3/ .....	31,337,000:	18,134,000:	11,074,000:	14,414,000:	-3,720,000
Forest roads and trails: 3/					
Federal-Aid Highway Act .	124,578,000:	112,859,000:	- -	170,104,000:	+57,245,000
Timber purchaser: road construc- tion authority :	- -	- -	- -	200,000,000:	+200,000,000
Acquisition of lands for Na- tional Forests,					
Special Acts ..	161,000:	161,000:	- -	160,000:	-1,000
Acquisition of lands to complete:					
land exchanges	39,310:	35,000:	- -	54,000:	+19,000
Acquisition of lands, Klamath Indians .....	49,000,000:	- -	- -	- -	- -
Cooperative range improvements ..	700,000:	700,000:	- -	700,000:	- -
Assistance to States for tree planting 3/ ...	1,355,000:	1,359,000:	829,000:	1,373,000:	+14,000
Construction and operation of rec- reation facili- ties 3/.....	1,260,000:	3,674,000:	2,212,000:	2,475,000:	-1,199,000
Youth conservation: corps 3/ .....	10,392,000:	35,000,000:	- -	- -	-35,000,000
<u>Permanent Appro- priations</u>					
Expenses, brush disposal 3/ ...	24,183,923:	33,000,000:	9,000,000:	33,000,000:	- -
Roads and Trails for States, Na- tional Forests Fund .....	47,003,064:	35,908,943:	46,900,000:	14,250,000:	-21,658,943
Licensee Pro- grams 3/ .....	223,351:	250,000:	63,000:	280,000:	+30,000
Restoration of forest lands and improvements 3/ :	36,609:	50,000:	15,000:	50,000:	- -





Summary of Estimated Appropriations and Receipts--continued

Item	1/ Available 1975	2/ Estimated available 1976	Estimated available : transition : quarter 2/	Budget estimate 1977	Change 1977 over 1976
Permanent Approp- riations--cont'd.					
Payment to Minne- sota (Cook, Lake, and St. Louis Counties) from the National For- ests Fund .....	\$259,038:	\$259,038:	\$259,038:	\$65,000:	-\$194,038
Payments to Coun- ties, National Grasslands .....	831,226:	875,000:	- - :	950,000:	+75,000
Payments to school funds, Arizona and New Mexico .	190,862:	76,827:	100,000:	25,000:	-51,827
Payments to States, National Forests Fund ...	119,482,282:	89,770,055:	117,250,000:	35,600,000:	-54,170,055
Total .....	952,790,665:	811,281,863:	336,241,038:	971,612,000:	+160,330,137
Permanent appro- priations shown above .....	-192,210,355:	-160,189,863:	-173,587,038:	-84,220,000:	+75,969,863
Total (exclud- ing permanent appropriations):	760,580,310:	651,092,000:	162,654,000:	887,392,000:	+236,300,000
Receipts					
Timber sales ....	332,074,324:	440,000,000:	135,000,000:	440,000,000:	- -
Grazing .....	6,564,957:	9,465,000:	500,000:	10,100,000:	+635,000
Power .....	513,306:	515,000:	10,000:	525,000:	+10,000
Recreation .....	5,503,762:	5,600,000:	605,000:	5,700,000:	+100,000
Land uses .....	1,306,272:	1,400,000:	100,000:	1,400,000:	- -
Mineral leases and permits .....	10,136,453:	9,800,000:	2,600,000:	10,800,000:	+1,000,000
Admission and user fees .....	4,283,917:	4,500,000:	3,800,000:	5,000,000:	+500,000
National grass- lands and land utilization ....	3,417,733:	4,135,000:	1,425,000:	5,250,000:	+1,115,000
Oregon and Cali- fornia grant lands: 4/					
Timber sales ..	9,226,450:	10,000,000:	3,000,000:	10,000,000:	- -
Other .....	34,267:	- - :	- - :	- - :	- -
	5/				
Total receipts:	373,061,441:	485,415,000:	147,040,000:	488,775,000:	+3,360,000

1/ Includes \$10 million of trust funds used for fighting forest fires repaid in fiscal year 1976.

2/ Excludes proposed supplemental for fighting forest fires, \$115 million in 1976 and \$40 million in transition quarter.

3/ In addition, prior year balances are available.



4/ Account established for Oregon and California railroad grant lands, for which receipts are transferred to Department of the Interior for distribution under the Acts of August 28, 1937, June 24, 1954, and August 3, 1961 (43 USC 1181f-g).

5/ Excludes following collections made by others for use of the public domain National Forests land:

Federal Power Commission--power licenses (41 Stat. 1063) .....	\$205,000 (estimate)
Department of the Interior, Bureau of Land Management-- mineral leases, licenses and permits (PL 93-153; 87 Stat. 576; 30 USC 185) .....	75,031,382



# JOB CORPS CIVILIAN CONSERVATION CENTERS

(Funds transferred to Forest Service by Department of Labor)

	:		:		: Transition		:	
	:		:		: Quarter		:	
	: Available 1975:		Estimate 1976:		Estimate		: Estimate 1977	
	No. of:	Amount	No. of:	Amount	No. of:	Amount	No. of:	Amount
	Perm. :	(in	Perm. :	(in	Perm. :	(in	Perm. :	(in
	Pos. :	thous.):	Pos. :	thous.):	Pos. :	thous.):	Pos. :	thous.):
Center capital .....	2	\$1,125	1	\$1,299	- -	- -	1	\$255
Center operations ....	650	23,670	639	25,035	- -	\$6,350	639	24,708
Program direction ....	82	1,730	59	1,884	- -	482	59	1,854
Total .....	734	26,525	699	28,218	- -	6,832	699	26,817

NOTE: Fiscal years 1976, transition quarter, and 1977 estimates are based on best information available to the Forest Service as of January 6, 1976.



FOREST SERVICE

CONSOLIDATED SCHEDULE OF PERMANENT POSITIONS PAID  
FROM FUNDS AVAILABLE TO THE FOREST SERVICE

DETAIL OF PERMANENT POSITIONS

	19 75 actual	19 76 estimate	19 77 estimate
Executive level V .....	1	1	1
GS-18 .....	4	4	4
GS-17 .....	8	8	8
GS-16 .....	38	38	38
GS-15 .....	199	210	210
GS-14 .....	500	541	541
GS-13 .....	1,413	1,472	1,472
GS-12 .....	2,359	2,412	2,412
GS-11 .....	3,727	3,757	3,757
GS-10 .....	65	65	65
GS-9 .....	4,029	4,072	4,072
GS-8 .....	146	152	152
GS-7 .....	3,425	3,526	3,526
GS-6 .....	974	1,020	1,020
GS-5 .....	2,496	2,520	2,520
GS-4 .....	1,720	1,729	1,729
GS-3 .....	550	566	566
GS-2 .....	61	57	57
GS-1 .....	15	16	16
Subtotal .....	21,730	22,166	22,166
Grades established by Act of June 20, 1953 (72 Stat. 213) and Act of September 23, 1959 (73 Stat. 651):			
Chemist, \$37,800 .....	1	1	1
Research forester, \$37,800 .....	2	2	2
Forest products technologist, \$37,800 .....	1	1	1
Subtotal .....	4	4	4
Grades established by the Administrator, Agency for International Development:			
FC-12, \$31,441 to \$37,800 .....	3	- -	3
FC-11, \$26,726 to \$35,253 .....	- -	1	- -
FC-10, \$22,906 to \$29,782 .....	7	6	7
Subtotal .....	10	7	10
Ungraded .....	997	999	1,000
Total permanent positions .....	22,741	23,176	23,180
Unfilled positions, end of year .....	-3,151	-3,326	-3,330
Total permanent employment, end of year ..	19,590	19,850	19,850
(Mono cast: 16.3)			
(Mono cast: 4.9)			
(Mono cast: 4.9)			
(Mono cast: 4)			





The Forest Service is responsible for promoting the conservation and wise use of the country's forest, range, and related watershed lands which comprise about one-third of the total land area of the United States. There are fourteen separate appropriation accounts and four payment accounts in the Forest Service budget, and at least ten appropriation activities representing allocations from other agencies which are required to carry out Forest Service responsibilities. The Forest Service is organized to meet the overall responsibilities, not to meet the responsibility of each activity. An employee or group of employees may work on several activities during the course of a year. It is not possible to determine the positions involved in a single activity. Therefore, a consolidated schedule of permanent positions is presented.







DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-32a

STANDARD FORM 300-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

FOREST PROTECTION AND UTILIZATION

Program and Financing (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	19 TQ estimate	19 77 estimate
05-96-1100-0-1-302				
Program by activities:				
Direct program				
1. Forest land management:				
(a) National Forest protection and management .....	300,635	353,859	129,296	344,739
(b) Fighting forest fires .....	112,686	4,275	4,275	4,275
(c) Forest insect and disease control	14,108	25,090	7,500	10,150
(d) Cooperative law enforcement ....	3,492	4,657	1,500	4,460
Total forest land management	430,921	387,881	142,571	363,624
2. Forest research:				
(a) Forest and range management .....	29,609	30,971	10,072	30,384
(b) Forest protection	22,414	22,350	5,965	25,516
(c) Forest products and engineering	11,203	12,400	4,000	11,949
(d) Forest resource economics .....	9,083	8,700	2,650	10,286
(e) Forest research construction ...	-5	.....	.....	.....
Total forest research .....	72,304	74,421	22,687	78,135
3. State and private forestry cooperation:				
(a) Forest fire control .....	22,681	24,500	7,900	15,412
(b) Forest tree planting .....	344	337	50	335
(c) Forest management and processing ..	5,428	5,700	600	5,925
(d) General forestry assistance .....	3,299	4,450	1,500	4,606
Total State and private forestry cooperation ..	31,752	34,987	10,050	26,278
Total direct program ....	534,977	497,289	175,308	468,037
Reimbursable program				
1. Forest land management ..	8,959	9,050	4,325	9,050
2. Forest research .....	1,492	2,000	500	2,000
3. State and private forestry cooperation ..	772	750	175	750
Total reimbursable program .....	11,223	11,800	5,000	11,800
(Mono cast: 22.18)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
FOREST PROTECTION AND UTILIZATION

A-11-32a

STANDARD FORM 300-1

June 1973, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)--continued

Identification code		1975 actual	1976 estimate	1977 TQ estimate	1977 estimate
05-96-1100-0-1-302					
Program by activities--continued					
Total program costs, funded 1/ .....		546,201	509,089	180,308	479,837
Change in selected resources (undelivered orders) ...		8,058	-13,438	-26,769	30,775
10	Total obligations .....	554,259	495,651	153,539	510,612
Financing:					
Receipts and reimbursements from:					
11	Federal funds .....	-8,549	-9,221	-3,000	-9,200
13	Trust funds .....	-10,000	.....	.....	.....
14	Non-Federal sources ...	-3,055	-3,300	-2,000	-3,300
21	Unobligated balance avail- able, start of period	-5,400	-3,960	.....	.....
24	Unobligated balance avail- able, end of period ..	3,960	.....	.....	.....
25	Unobligated balance lapsing .....	543	.....	.....	.....
40	Budget authority (appropriation) .....	531,758	479,170	148,539	498,112
Relation of obligations to outlays:					
71	Obligations incurred, net	532,655	483,130	148,539	498,112
72	Obligated balance, start of period .....	81,507	87,343	70,346	35,929
74	Obligated balance, end of period .....	-87,343	-70,346	-35,929	-67,176
77	Adjustments in expired accounts .....	14	.....	.....	.....
90	Outlays	526,832	500,127	182,956	466,865
1/ Includes capital outlay as follows: 1975, \$14,417 thousand; 1976, \$22,500 thousand, Transition Quarter, \$6,500 thousand; 1977, \$22,000 thousand.					

(Minor cost: 5.0)

(Minor cost: 5.0)

(Minor cost: 5.0)

(Minor cost: 5.0)

(Minor cost: 5)









FOREST PROTECTION AND UTILIZATION

a/  
FOREST LAND MANAGEMENT

		<u>Permanent full-time positions</u>
Appropriation, 1975 .....	\$419,362,000	10,452
Appropriation, 1976 .....	365,821,000	10,543
Appropriation, transition quarter .....	(117,000,000)	
Estimate, 1977 .....	388,621,000	10,689
Change from 1976 .....	<u>+22,800,000</u>	<u>+146</u>

a/ In addition, \$700,000 is available by transfer from Cooperative Range Improvements.

SUMMARY OF INCREASES AND DECREASES  
(On basis of adjusted appropriation--dollars in thousands)

	<u>Increase or Decrease (-)</u>			<u>Total</u>	
	<u>Pay</u>		<u>Permanent</u>	<u>Total</u>	<u>Permanent</u>
	<u>Costs</u>	<u>Program</u>	<u>Full-time</u>	<u>1977</u>	<u>Full-time</u>
			<u>Positions</u>	<u>Estimate</u>	<u>Positions</u>
<u>Recreation use--Increase will</u> be used to selectively reopen closed campgrounds and restore operating seasons; strengthen visual resource management of forest and range resource pro- grams; improve administration at concessionaire recreation sites and facilitate planning and development of additional facilities; provide for manage- ment planning and administration of two newly designated wilder- nesses; and for increased study schedule for Wilderness Study Areas in the eastern National Forests. ....	\$1,980	\$4,433	64	\$57,860	1,483
<u>Wildlife and fish habitat</u> management--Increase will be used to continue the coopera- tive program with States and other Federal agencies and to provide coordination of fisheries and wildlife management with other related resource activi- ties. ....	468	2,120	25	13,500	419
<u>Rangeland management--Increase</u> consists of \$956,000 for initiation of range improve- ments designed to increase production of forage; \$532,000 for accelerating treatment of rangeland in low ecological condition; and \$2,260,000 for increases in resource planning, management, and maintenance. ....	696	3,748	45	22,751	624



SUMMARY OF INCREASES AND DECREASES--continued  
(On basis of adjusted appropriation--dollars in thousands)

	<u>Increase or Decrease (-)</u>			<u>Total</u>	<u>Total</u>
	<u>Pay</u>		<u>Permanent</u>	<u>1977</u>	<u>Permanent</u>
	<u>Costs</u>	<u>Program</u>	<u>Full-time</u>	<u>Estimate</u>	<u>Full-time</u>
			<u>Positions</u>		<u>Positions</u>
<u>Soil and water management--</u>					
Net increase consists of increase of \$3,156,000 for providing scientific soil and water knowledge in support of other related resource activities; decrease of \$899,000 for watershed restoration and improvement; decrease of \$109,000 for wild and scenic river studies; decrease of \$540,000 for environmental analysis and construction liaison; and decrease of \$536,000 for soil stabilization and reservoir protection related to projects of water resource development agencies. ....	\$696	\$1,072	12	\$19,542	577
<u>Minerals area management--</u>					
Increase consists of minimizing impacts of mineral activities on surface resources (\$228,000), coordination of mineral activities with other related resource activities (\$435,000), administration of mineral rights (\$175,000), planning and supervising reclamation (\$68,000), land use planning (\$165,000) and project geologic work (\$123,000). ...	312	1,194	17	8,095	299
<u>Forest fire protection--</u>					
Increase consists of \$455,000 for fuel modification and fire management in support of other related resource activities, \$430,000 for air quality and smoke management planning, and \$1,310,000 for partial implementation of the National Fire Plan. ....	1,320	2,195	21	42,224	1,090



SUMMARY OF INCREASES AND DECREASES--continued  
(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)				
	Pay	Program	Permanent	Total	Total
	Costs		Full-time	1977	Permanent
			Positions	Estimate	Full-time
					Positions
<u>General land management activities--</u> Net increase consists of \$772,000 to improve the standards of administration of special uses and maintain minimum standards of air and water quality required by law on 80 percent of the permits outstanding; \$1,300,000 for maintenance of fire and general purposes facilities required to maintain health and safety; \$306,000 for marking land lines and monuments; \$1,190,000 for implementation of an Interagency Geomtronics Center; and \$915,000 to reimburse the Employees' Compensation Fund. This increase is offset by a decrease of \$633,000 in the land exchange program. ....					
	\$1,074	\$3,850	31	\$35,647	924
<u>Cooperative law enforcement--</u> Increase is for assistance to State and local law enforcement agencies in the enforcement of State and local laws on National Forest System lands. ....					
	61	1,314	5	5,306	56
<u>Sales administration and management--</u> Net decrease consists of increase of \$2,538,000 to advance level of silvicultural examination on an additional 2,787,000 acres; increase of \$104,000 for harvest administration to assure environmentally sound harvest procedures; decrease of \$6,937,000 in sale preparation program; and decrease of \$265,000 for enforcement of log export and substitution controls. ..					
	4,223	-4,560	-45	101,277	3,634
<u>Forest insect and disease management--</u> Decrease of \$4,975,000 is proposed in the contingency fund, which leaves \$5,025,000 available until expended, for high priority suppression projects. ....					
	343	-4,975	-29	15,012	213





SUMMARY OF INCREASES AND DECREASES--continued  
(On basis of adjusted appropriation--dollars in thousands)

	<u>Increase or Decrease (-)</u>			<u>Total</u>	<u>Permanent</u>
	<u>Pay</u>	<u>Program</u>	<u>Permanent</u>	<u>1977</u>	<u>Full-time</u>
	<u>Costs</u>		<u>Full-time</u>	<u>Estimate</u>	<u>Positions</u>
			<u>Positions</u>		
<u>Reforestation and stand</u> <u>improvement--The 1977 re-</u> <u>quest is for an increase</u> <u>of \$2,000,000 for 32,014</u> <u>acres of timber stand</u> <u>improvement work, and a</u> <u>decrease of \$2,000,000</u> <u>for reforestation to</u> <u>meet optimum program</u> <u>possible with available</u> <u>planting stock and</u> <u>accessible prepared</u> <u>sites. ....</u>	\$1,236	- -	- -	\$63,132	817
<u>Fighting forest fires. ...</u>	- -	- -	- -	4,275	553
 Total, Forest land management. ....	 <u>12,409</u>	 <u>10,391</u>	 <u>146</u>	 <u>388,621</u>	 <u>10,689</u>



FOREST PROTECTION AND UTILIZATION -- FOREST LAND MANAGEMENT

PROJECT STATEMENT  
(On obligation basis)

Project	1975	1976	Transition : : quarter : : estimate :	1977 : estimate :	Change : from : 1976
<u>FOREST LAND MANAGEMENT:</u>					
National Forest protection and management:					
(1) Timber resource management:					
(a) Sales administration and management .....	\$88,560,454:	\$101,614,000:	\$35,553,000:	\$101,277,000:	-\$337,000
(b) Reforestation and stand improvement .....	46,552,805:	61,896,000:	14,322,000:	63,132,000:	+1,236,000
(2) Recreation use .....	49,615,683:	51,447,000:	24,634,000:	57,860,000:	+6,413,000
(3) Wildlife and fish habitat management .....	9,484,083:	10,912,000:	3,081,000:	13,500,000:	+2,588,000
(4) Rangeland management .....	17,964,525:	1/ 19,027,828:	5,313,000:	23,451,000:	+4,423,172
(5) Soil and water management .....	15,737,518:	17,774,000:	5,278,000:	19,542,000:	+1,768,000
(6) Minerals area management .....	4,131,395:	6,589,000:	2,041,000:	8,095,000:	+1,506,000
(7) Forest fire protection .....	36,905,104:	2/ 38,710,720:	12,489,000:	42,224,000:	+3,513,280
(8) General land management activities .....	28,685,284:	30,723,000:	5,876,000:	35,647,000:	+4,924,000
Subtotal .....	297,636,851:	338,693,548:	108,387,000:	364,728,000:	+26,034,452
Amount advanced from Cooperative Range Improvements .....	-679,172:	-720,828:	-	-700,000:	+20,828
Subtotal, National Forest protection and management ..	296,957,679:	337,972,720:	108,387,000:	364,028,000:	+26,055,280
(9) Fighting forest fires .....	114,275,000:	3/ 4,275,000:	4,275,000:	4,275,000:	-
(10) Forest insect and disease management .....	15,921,533:	2/ 22,783,445:	3,078,000:	15,012,000:	-7,771,445
(11) Cooperative law enforcement .....	3,607,542:	2/ 4,750,141:	1,060,000:	5,306,000:	+555,859
Total obligations or estimate .....	430,761,754:	369,781,306:	117,000,000:	388,621,000:	+18,839,694
Unobligated balance brought forward .....	-5,399,978:	-3,960,306:	-	-	+3,960,306
Unobligated balance carried forward .....	3,960,306:	-	-	-	-
Unobligated balance lapsing .....	39,918:	-	-	-	-
Total available or estimate .....	429,362,000:	365,821,000:	117,000,000:	388,621,000:	+22,800,000
Transfer from other accounts .....	-10,000,000:	-	-	-	-
Appropriation or estimate .....	419,362,000:	-	-	-	-

1/ Includes \$20,828 1975 unobligated balance in Cooperative Range Improvements.

2/ Includes 1975 unobligated balances carried forward--Forest fire protection ..... \$1,720  
Cooperative law enforcement ..... 819,141  
Forest insect and disease management ..... 3,139,445  
3,960,306

3/ Excludes proposed supplemental for fighting forest fires, \$115 million in 1976 and \$40 million in transition quarter.



GEOGRAPHIC BREAKDOWN OF APPROPRIATION

## National Forest Protection and Management

	1976 estimate	Transition quarter estimate	1977 estimate	Increase over 1976
			(in thousands)	
Alabama .....	\$2,960	\$984	\$3,188	\$228
Alaska .....	11,300	3,198	12,169	869
Arizona .....	14,265	4,010	15,361	1,096
Arkansas .....	8,030	2,640	8,647	617
California .....	59,200	19,750	63,778	4,578
Colorado .....	12,965	3,917	13,961	996
District of Columbia ...	17,670	4,385	19,028	1,358
Florida .....	2,730	898	2,940	210
Georgia .....	2,420	804	2,606	186
Idaho .....	29,860	10,569	32,155	2,295
Illinois .....	1,095	348	1,179	84
Indiana .....	970	337	1,045	75
Kansas .....	60	20	65	5
Kentucky .....	2,375	789	2,558	183
Louisiana .....	2,730	905	2,940	210
Maine .....	160	59	172	12
Maryland .....	130	30	140	10
Michigan .....	6,015	2,010	6,477	462
Minnesota .....	6,060	1,955	6,526	466
Mississippi .....	4,085	1,358	4,399	314
Missouri .....	3,745	1,050	4,033	288
Montana .....	22,530	10,055	24,262	1,732
Nebraska .....	335	103	361	26
Nevada .....	2,970	853	3,198	228
New Hampshire .....	1,615	594	1,739	124
New Mexico .....	11,370	3,201	12,244	874
New York .....	26	9	28	2
North Carolina .....	3,480	1,158	3,747	267
North Dakota .....	215	97	232	17
Ohio .....	645	224	695	50
Oklahoma .....	620	203	668	48
Oregon .....	43,750	12,675	47,112	3,362
Pennsylvania .....	1,795	621	1,933	138
Puerto Rico .....	275	92	296	21
South Carolina .....	2,570	854	2,768	198
South Dakota .....	3,145	982	3,386	241
Tennessee .....	2,190	729	2,358	168
Texas .....	2,985	990	3,214	229
Utah .....	10,565	3,355	11,377	812
Vermont .....	830	304	894	64
Virginia .....	3,735	1,226	4,022	287
Washington .....	20,485	6,058	22,059	1,574
West Virginia .....	2,145	700	2,309	164
Wisconsin .....	3,490	1,065	3,758	268
Wyoming .....	8,080	2,423	8,701	621
Total .....	338,671	108,587	364,728	26,057



TIMBER RESOURCE MANAGEMENT--Sales administration and management  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$86,575,000	3,562
1976 .....	101,614,000	3,679
Transition quarter .....	(35,553,000)	
1977 .....	101,277,000	3,634
Change from 1976 .....	<u>-337,000</u>	<u>-45</u>

A net decrease of \$337,000, with a decrease of 45 permanent full-time positions, is proposed as follows:

- (1) Increase of \$4,223,000 to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).
- (2) Increase of \$2,538,000 to advance the level of silvicultural examination on an additional 2,787,000 acres to determine the needs of individual timber stands as required to promote optimum growth, health, and production.
- (3) Increase of \$104,000 for harvest administration to assure environmentally sound harvest procedures.
- (4) Decrease of \$6,937,000 with a reduction in the sale preparation program of 0.8 billion board feet.
- (5) Decrease of \$265,000 to reflect experienced costs of log export and substitution control monitoring.

The total program follows:

	<u>FY 1975</u>	<u>FY 1976</u>	<u>Transition quarter</u>	<u>FY 1977</u>	<u>Change from 1976</u>
	<u>(in thousands of dollars)</u>				
Sale preparation .....	\$43,808	\$54,320	\$15,420	\$49,445	-\$4,875
Harvest administration .....	32,522	31,636	15,235	33,150	+1,514
Enforcement of log export and substitution controls .....	710	710	185	445	-265
Subtotal, preparation and harvest .....	<u>77,040</u>	<u>86,666</u>	<u>30,840</u>	<u>83,040</u>	<u>-3,626</u>
Timber inventory and stand management control .....	5,701	6,090	1,786	6,346	+256
Silvicultural examination ...	3,834	8,858	2,927	11,891	+3,033
Subtotal, inventory and examination .....	<u>9,535</u>	<u>14,948</u>	<u>4,713</u>	<u>18,237</u>	<u>+3,289</u>
Total .....	86,575	101,614	35,553	101,277	-337

Preparation and Administration

GOAL: (1) To prepare all sales in accordance with the unit's timber management plan. Where lack of road access on a forest precludes the orderly sale of high priority timber, adjustments in this year's sales level within these forests may be required.

- (2) To administer the operation of all timber sales in accordance with the terms of the timber sale contract.





Workload and cost information is shown in the following tabulation:

	<u>FY 1975</u>	<u>FY 1976</u>	<u>Transition quarter</u>	<u>FY 1977</u>
<u>Sale preparation</u>	<u>1/</u>	<u>2/ 3/</u>	<u>3/</u>	<u>3/</u>
Million board feet (local scale) ...	11,867	11,234	3,100	10,400
Cost per thousand board feet .....	\$3.69	\$4.84	\$4.97	\$4.75
Total cost (in thousands) .....	\$43,808	\$54,320	\$15,420	\$49,445
<u>Harvest administration</u>				
Expected harvest level in million				
board feet (local scale) .....	9,174	10,000	3,500	10,000
Total cost (in thousands) .....	\$32,522	\$31,636	\$15,235	\$33,150

1/ Includes 406 million board feet of timber prepared and released for harvest on existing long-term sales in Alaska, 8 million board feet of fire-killed timber prepared and added to existing sales, and 629 million board feet of timber offered for sale but no bids were received.

2/ Includes a reduction of 308 million board feet because of the decision of the Fourth Circuit Court of Appeals regarding the interpretation of timber management practices under the Organic Act of 1897.

3/ Includes separate targets for volumes which are chargeable against the allowable harvest and nonchargeable volumes. Harvest of mortality also included in this volume.

In fiscal year 1977 the demand for National Forest timber should be met with the 10.4 billion board feet sale preparation program plus the volume of uncut timber already under contract and the volume of timber currently prepared but not sold. At the end of fiscal year 1976 it is estimated that there will be about 30 billion board feet of uncut timber under contract in the lower 48 States (plus about 20 billion in Alaska), and about 1 billion board feet of timber prepared but not sold. The demand for National Forest timber will be affected by the depressed market for timber products and, to some extent, by the decision of the Fourth Circuit Court of Appeals concerning the timber sale procedures on the Monongahela National Forest in West Virginia.

#### Examples of Recent Accomplishments

Recent and estimated returns to the Treasury from the harvest of National Forest timber are summarized in the following tabulation:

<u>Fiscal Year</u>	<u>Receipts (in millions)</u>
1973 .....	\$446.7 <u>1/</u>
1974 .....	459.9 <u>1/</u>
1975 .....	341.3 <u>1/</u>
1976 .....	450.0 (estimated)
Transition quarter ...	138.0 (estimated)
1977 .....	450.0 (estimated)

1/ Excludes \$7.9 million of timber receipts in fiscal years 1973 and 1974 which were not credited to the National Forests Fund until fiscal year 1975 due to action pending on land exchange offer executed by the Fibreboard Corporation.

The record of timber harvested and sold during the past 3 years is compared with the allowable harvest in the following table:



Fiscal Year	Annual Allowable Harvest 1/	Actual Volume Harvested	Percent of	Actual Volume Sold 2/	Percent of
			Allowable Actually Harvested (Volumes in billion board feet, local scale)		Allowable Actually Sold
1973	13.6	12.4	91	10.2	75
1974	13.3	11.0	83	10.2	77
1975	15.8 3/	9.2	58	10.8	68

1/ As of the January 1 midpoint of the fiscal year. Includes sawtimber and small (convertible) products.

2/ There are additional volumes prepared and released for harvest on long-term sales in Alaska. Also, there were additional volumes offered for sale for which there were no bids.

3/ Potential yield--annual basis as of July 1, 1974.

#### National Forest Timber Inventory and Plans

GOAL: To provide timber resource information for overall land-use planning and to plan the orderly development of timber production on the National Forests. A specific objective is to develop the capability for periodic updating of timber management plans to recognize the changes increased growth rates and other activities generate.

A comparison of proposed outputs follows:

	<u>FY 1975</u>	<u>FY 1976</u>	<u>Transition quarter</u>	<u>FY 1977</u>
<u>Timber management plans</u>				
Management plan inventory (in thousand acres) .....	19,296	12,999	4,300	11,643
Management plan revision (number) ...	8	15	- -	30
<u>Silvicultural examination</u>				
(in thousand acres) .....	4,802	4,285	2,225	7,072

Within current levels of forest management on the National Forests, available supplies of timber are considerably below yields attained in fully stocked natural stands, and much less than yields attainable with intensive practices. Both technical opportunities for increasing yields and economic returns from investments in intensified management vary widely from stand to stand and place to place depending on a variety of factors. Differences in treatment opportunities stem in part from site and stand conditions. Stocking, species composition, tree diameter distribution, and regeneration requirements also vary widely in different stands and directly affect management opportunities. In many cases the necessity of modifying timber management to enhance environmental protection and to maintain recreation, wildlife, and esthetic values increases management costs or reduces amounts of timber growth available for harvest.

Application of intensified management is needed now to meet future supply needs. The foundation of all such management intensification efforts starts with adequate, timely inventories of the timber resource and expands to intensive, individual stand examination by qualified silviculturists and professionals in supporting fields of wildlife biology, soils, geology, landscape management, economics, logging, and engineering.

Forestwide timber management plans are prepared from the forest inventories, and stand prescriptions are made following the detailed examination of each stand. A complex, detailed record of appropriate statistics is maintained for each stand, compartment, and forest. Stand needs identified by the stand silvicultural



examination are met by timber harvesting, reforestation, or timber stand improvement measures. The growth potential of each stand and the forest are identified and subsequent actions are prescribed. Results are measured and recorded throughout the life of the stand through recurring inventories and stand examination. Currently, inventories are done on a 10-year recurring cycle.

Changes take place rapidly in growing stands of timber through application of harvesting and timber stand improvement measures, and the effects of insects, disease, and natural calamities. As a minimum, each stand should be reexamined every ten years to measure the change and to prescribe for future needs, such as timber harvest, reforestation, or stand improvement.

Current program levels are adequate for a 10-year inventory cycle and stand silvicultural examination on 7,072,000 acres annually, which is 65 percent more than the 4,285,000 acres planned to be covered in 1976.



TIMBER RESOURCE MANAGEMENT--Reforestation and Stand Improvement  
(All capital investment)

		<u>Permanent full-time positions</u>
1975 .....	\$51,262,000	912
1976 .....	61,896,000	817
Transition quarter .....	(14,322,000)	
1977 .....	63,132,000	817
Change from 1976 .....	<u>+1,236,000</u>	<u>- -</u>

A net increase of \$1,236,000 is proposed as follows:

- (1) Increase of \$2,000,000 to increase the timber stand improvement program by 32,014 acres.
- (2) Increase of \$1,236,000 to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).
- (3) Decrease of \$2,000,000 for reforestation to meet the optimum program possible with available planting stock and accessible prepared sites.

No change in permanent full-time positions is proposed.

The program follows:

	<u>FY 1975</u>	<u>FY 1976</u>	<u>Transition quarter (in thousands)</u>	<u>FY 1977</u>	<u>Change from 1976</u>
Reforestation .....	\$24,745	\$34,150	\$5,492	\$32,150	-\$2,000
Timber stand improvement ...	21,270	21,500	6,730	24,736	+3,236
Genetic tree improvement ...	2,348	2,536	1,040	2,536	- -
Nursery expansion and develop- ment .....	<u>2,899</u>	<u>3,710</u>	<u>1,060</u>	<u>3,710</u>	<u>- -</u>
Total .....	51,262	61,896	14,322	63,132	+1,236

GOAL: To increase the growth rate and product quality of timber growing on the National Forests to the levels consistent with maintenance of environmental quality, multiple resource use objectives, and total social and economic benefits and costs.

The output of all products and services of the National Forests, including timber products, can be increased materially in the next decade at costs commensurate with benefits. Greater investments of capital, labor, and materials will be needed along with improved, intensified quality management. The remainder of the 1970's is a crucial time for action to insure future timber supply. The harvesting of presently standing timber, both old growth and young growth, will continue to be important for a few decades; but, increasingly, harvest will consist of wood grown after 1975. For the long run, 2020 and beyond, it is timber growth which is all important; and available timber volume in those decades depends upon measures to increase growth taken in the 1970's and 1980's.

Increased timber production on areas suitable for treatment can be achieved by a variety of measures, including accelerated regeneration, stand improvement, commercial thinning, fertilization, genetic tree improvement, improved harvesting practices and utilization, and intensified protection.





After harvest, fire, windthrow, disease or insect kill, the salvable timber is removed and the area regenerated by natural or artificial means. Where available and appropriate, genetically improved seedlings are planted. When such seedlings are used, both economics and silviculture normally dictate thinnings and intermediate selective cutting and final harvest by clearcutting. Precommercial and commercial thinnings, application of fertilizers, and control of insect pest and diseases are measures for increasing the growth and development of trees. Following forestwide organization of stands by age classes, prompt harvesting at maturity, together with immediate regeneration with a new stand before weeds and shrubs take over the site, is always desirable and often essential for success.

A comparison of proposed outputs follows:

	<u>FY 1975</u>	<u>FY 1976</u> (estimate)	<u>Transition</u> <u>quarter</u> (estimate)	<u>FY 1977</u> (estimate)
Reforestation (acres) .....	173,713	187,788	9,900 1/	199,624
Timber stand improvement (acres) ...	274,587	267,786	30,600 <u>1</u> /	299,800
Genetic tree improvement (acres of seed orchards) .....	1,654	1,654	1,654	1,654
Nursery expansion and development (no. of nurseries) .....	11	11	11	12

1/ Due to the season of the year for this transition quarter, completed acreage will be low. Most of the expenditures will be for preliminary and preparatory work.

The Forest Service is improving information concerning those sites in need of reforesting and stand improvement measures. Silvicultural examination of stands and sites is used to identify the needs and determine site productiveness. Then investment analysis is made to select those sites that have the highest potential for growth and other returns and show the most cost effectiveness.

The only source of lumber and plywood during the 1970's and 1980's will be from trees of merchantable size now standing. Growth of additional wood on these trees, growth of wood on smaller trees now standing, and growth of trees to be seeded or planted during the decade, may all add to the annual timber growth rate. This could increase the current programmed allowable harvest rate on forests with a surplus of old-growth timber, even though none of the above young and new trees would be cut during that period.

The proposed reforestation and stand improvement program will contribute to the long-range goal of improving the total net growth and sustainable harvest volume on the National Forests. Growth resulting from this program will not only help to off-set the decrease in available yield brought about by changes in land use but will also help to raise both the short-term and long-term sustainable harvests from National Forests. The long-range increase in yield (by the year 2020) from the fiscal year 1977 program will exceed 133 million board feet annually.

The Supplemental National Forest Reforestation Fund Act of September 18, 1972 (86 Stat. 678), established the interest of Congress in reforestation of National Forest lands and requires an annual report of need; 3.1 million acres were so reported in 1975. Planting and seeding the existing 3.1 million acres needing reforestation, plus a substantial increase in intensive silvicultural treatments such as thinning, fertilization, and genetics, will enable the National Forests to sustain timber production on a high level. There are 8.7 million acres of land in a backlog needing stand improvement. In addition, the timber harvesting program produces a recurring stand improvement need with a magnitude of 200 to 250 thousand acres yearly.



The restrictions on the use of pesticides such as 2, 4, 5-T and rodenticides continues to be a constraint on the reforestation program. This restriction complicates site preparation, protection, and release of growing stock.

#### Examples of Recent Accomplishments

Reforestation. With appropriated funds, an area of 124,706 acres of National Forest land was reforested in 1975--113,703 by planting and 11,003 by seeding. In addition, on 49,007 acres the ground was prepared to promote regeneration from natural seedfall. Other reforestation accomplishments in 1975 include:

- (1) Forest Service seed extractories processed 28,265 pounds of seed.
- (2) Production of 113.6 million trees in 11 Forest Service nurseries.
- (3) Establishment of 15 acres of new seed production areas and 35 acres of new seed orchards. About 17.7 thousand acres were planted with seedlings grown from the better quality seed produced in seed orchards or seed production areas.

Reforestation with funds collected under the Knutson-Vandenberg Act. The following reforestation was in addition to reforestation done with appropriated funds:

	<u>Acres</u>
Tree planting .....	150,836
Seeding .....	14,137
Site preparation for natural seed-fall .....	56,190
	<u>221,163</u>

An additional 21,268 acres was reported accomplished on National Forest land by other Federal and cooperative programs. These unscheduled programs limit the ability to increase reforestation in fiscal year 1977 due to available planting stock and prepared sites.

The total area of accomplishment, where some treatment such as planting, seeding, or site preparation was applied in 1975, was 416,144 acres.

Timber stand improvement. An area of 276,072 acres was treated by the following cultural measures with appropriated funds in 1975:

	<u>Acres</u>
Thinning .....	186,602
Release .....	75,017
Pruning .....	1,485
Fertilizing .....	12,968
	<u>276,072</u>

Timber stand improvement was also done for the same purpose with Knutson-Vandenberg funds on the following acreage in 1975:

	<u>Acres</u>
Thinning .....	133,859
Release .....	37,818
Pruning .....	801
Fertilizing .....	46
	<u>172,524</u>

In addition, 5,900 acres of timber stand improvement was accomplished with other Federal or cooperative funds.



RECREATION USE  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$48,122,000	1,459
1976 .....	51,447,000	1,419
Transition quarter .....	(24,634,000)	
1977 .....	57,860,000	1,483
Change from 1976 .....	<u>+6,413,000</u>	<u>+64</u>

An increase of \$6,413,000, with an increase of 64 permanent full-time positions, is proposed as follows:

- (1) To selectively reopen closed campgrounds and restore operating seasons; strengthen visual resource management of forest and range resource programs; improve administration of public health, safety and welfare at concessionaire recreation sites and facilitate planning and development of additional needed facilities; provide for the costs of management planning and administration of two newly designated wildernesses; and for increased study schedule for Wilderness Study Areas in National Forests in the East (PL 93-622), \$4,433,000.
- (2) Provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$1,980,000.

The following tabulation shows the total planned financing with funds available (in thousands):

	<u>FY 1975</u>	<u>FY 1976</u>	<u>Transition quarter</u>	<u>FY 1977</u>	<u>Change from 1976</u>
Administration of concessions and recreation use permits ..	\$1,730	\$1,735	\$835	\$3,072	+\$1,337
Operation and maintenance ....	37,892	40,637	18,484	46,045	+5,408
Planning and inventories .....	1,400	1,955	785	1,671	-284
Wilderness administration ....	3,200	3,210	1,630	3,251	+41
Visitor Information Service ..	3,900	3,910	2,900	3,821	-89
Total .....	<u>48,122</u>	<u>51,447</u>	<u>24,634</u>	<u>57,860</u>	<u>+6,413</u>

GOAL: Based on the needs and desires of the Nation's people, provide for an estimated 216.4 million visitor-days of quality outdoor recreation on the National Forest System lands. Emphasis will be on providing new opportunities in dispersed recreation and improved opportunities in developed recreation near the using public.

Through programs of planning, operation, maintenance, enhancement, managed use, and visitor contact, coordinate recreation use with the multi-demands on the National Forest System, keeping it consistent with the land's capacity, user-safety, and basic resource protection.

Through properly planned and executed landscape management programs, insure that National Forest System uses are designed to recognize and retain or enhance the visual resource.

The Forest Service mission is to manage the recreation resources on National Forest lands to best serve the steadily increasing numbers of Americans seeking inspiration, enjoyment, and relaxation in the outdoors. Outdoor recreation opportunities and attractions include improvements ranging from family picnic areas to internationally known ski areas and natural features from trout streams to vast wilderness tracts.





The Forest Service maintains:

Developed camp and picnic family units .....	106,000
Swimming areas .....	322
Boating sites .....	857
Interpretive sites .....	458

The Service also administers permits to private individuals and groups covering:

Recreation residences .....	18,000
Winter sports areas .....	216
Organization camps .....	558
Lodges and resorts .....	370

Other recreation attractions of the National Forest System include:

National Recreation Areas .....	7
National Scenic Trails .....	2
Wild and Scenic Rivers .....	10
Wilderness and Primitive Areas (million acres) .....	15
Roads and trails (miles) .....	302,000
Fishing streams (miles) .....	83,000
Lakes and reservoirs (million acres) .....	2.7

#### Program Description

Eighteen percent, or more than 40 million visitor-days, of National Forest recreation use will take place at the more than 6,400 Forest Service developed campgrounds. An additional 10 percent, or 21 million visitor-days of use, will take place at other Forest Service developed sites. The private sector through concession operations will provide more than 24 million additional public recreation visitor-days of use, or about 12 percent of all recreation use on the National Forests.

Administration of camp and picnic areas will emphasize operation and cleanup to higher standards than currently provided, thereby improving service and reducing resource damage and facility deterioration. Some closed camp and picnic areas will be reopened to use. Those having high operating costs and low use will continue to be identified and closed when reasonable alternative sites are available.

Additionally, normal season of use will be restored at many sites that have previously been adjusted to assure availability during higher demand periods.

Maintenance will be provided to assure that all essential safety, sanitation and minimum user control is accomplished at open sites. There will be an increase in the amount of facility maintenance, which has been curtailed in the past. Priority will be given those developments available to the more populous areas.

The increase in the administration of concessions and recreation use permits will allow closer attention to public health, safety and welfare at concessioner developed public recreation sites. Emphasis will be placed on securing compliance with clean water and other applicable environmental standards. Continued effort will be made to attract private developers to provide needed developed and dispersed recreation facilities and opportunities on the National Forests. The private sector, through special use permits, provides almost one-half of the total capacity of developed recreation sites on National Forest System lands. Receipts to the Treasury from these permits were \$5,505,089 in fiscal year 1975, an increase of \$421,286 over the previous year.

Eight of the ten wild and scenic rivers administered in whole or in part by the Forest Service have complete management plans, but increasing demands for use by individuals, parties, and commercial outfitters requires frequent updating. Plans for the two newly-designated wild and scenic rivers will be initiated.





Environmental statements assist in decisionmaking on major Federal actions on National Forests. This proposed budget would provide recreation resource input into these studies.

High priority resource development activities will be given landscape management and design services. Landscape management efforts include training of National Forest land managers. This will help to ensure that commodity uses are planned and administered in a way consistent with the environmental and ecological integrity of the landscape involved. The program will allow application of visual management to the most critical and controversial scenic impacts such as timber harvest, range revegetation, utility construction, and fire management activities. Procedural instructions and a series of technical handbooks are being developed to provide guidance. To date, three handbooks have been compiled, published, incorporated in the Forest Service Directive System, and made available to other agencies, groups, and industry.

The first volume describes basic landscape management concepts and principles; the second provides a procedure for inventory of scenic quality and determination of the degrees of public concern for given areas. The recently published third volume, entitled "Utilities," describes methods of minimizing the visual effects of powerlines, pipelines, water and micro-wave transmission facilities. This volume has been highly acclaimed by other Government agencies, public utility companies and conservation organizations.

During fiscal year 1976, chapters dealing with roads and range will be published. In fiscal year 1977, chapters on fire and mining are scheduled for completion. This program is supported by a cadre of specially trained landscape architects who participate in interdisciplinary multiple use planning and project design.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) and Executive Order 11752 reflect increased public concern for high water quality standards. Solid waste and sewage treatment facilities costing in excess of \$60 million have been installed. Positive response to these new national priorities has required reassessment of investment and manpower allocations. Violating facilities or sites which cannot be economically corrected will be closed.

Over 7 million visitor-days are expected in the 87 wildernesses and 19 primitive areas (over 15 million acres) where people are seeking spiritual and physical refreshment. This budget will provide for 15 wilderness management plans to be finished, bringing to 73 the number of valid plans of the 106 needed. These funds will permit completion of intensive wilderness study for 16 additional New Wilderness Study Areas (NSAs), so that 68 of the 302 NSAs will be done. Another 20 NSAs will have studies initiated, bringing to 137 the number which have been started, or 45.5 percent of the total need.

The Forest Service administers 7 national recreation areas (NRAs), with the recent addition of Hells Canyon NRA (Idaho-Oregon). Management plans for 6 will be finished or revised, and the seventh will be initiated.

The plans will not only reflect changing use conditions, but will facilitate outdoor recreation activities which meet human needs while complementing national priorities by not requiring large expenditures of money or fossil fuel by users.

Greater emphasis will be placed on providing dispersed recreation opportunities on National Forests especially those near the user.

Visitor Information Service will stress efforts to:

- (1) Help the National Forest visitor understand and appreciate the forest environment so that he may better enjoy it and participate in natural resource management decisions which assure a quality of life experience for present and future Americans.



- (2) Enrich the experience of visitors to the National Forests and Forest Service facilities by providing forest orientation services and by interpreting the local human history, natural history, and natural resources.
- (3) Assist teachers and environmental education leaders by making appropriate off-season visitor information service facilities available for the teaching of ecology and forest and range conservation in an on-the-ground situation.
- (4) Assist scientists in the use of interpretive communication techniques in the dissemination and application of research results.

Fiscal year 1977 funds will continue visitor information services at a minimum service level. Special efforts will be made to extend public service by utilizing unstaffed services, such as selfguiding interpretive trails and auto tours, interpretive signs, wayside exhibits, and automatic message repeaters, at the 458 interpretive sites in the National Forest System and at other Forest Service facilities.

Total recreation use of the National Forests is increasing at a rate of 5 to 9 million visitor-days per year. Maintaining quality resource opportunities requires innovative approaches and public cooperation.

The "pack-your-trash" campaign has enabled the Forest Service to keep developed recreation sites open to the public when cleanup funds were insufficient to do every job. It is also effective in undeveloped areas. The benefits have been many times the cost and there are opportunities to expand this program.

A national annual increase in skiing of about 15 percent requires analysis and review of new National Forest areas to provide, with the assistance of the private sector, additional skiing opportunities.

Major recreation concessionaire developments, such as ski areas, require comprehensive resource planning integrated with social and economic needs of people, and coordinated with State and local governments. In many cases, entire new communities are developed as a result of ski area development. Because of the effects on communities and people, these studies must be thorough and are time consuming and expensive. It is a necessary process which eventually leads to developments which have long-lasting social effects and provide a large amount of public recreation financed by private funds.

Other developments such as summer resorts, marinas, and organization sites also provide significant amounts of public recreation. The increased funding will enable the Forest Service to continue with the planning and development of these needed privately financed recreation facilities.

The initial planning for management of recreational use by off-road vehicles (required by Executive Order 11644) will be completed. Implementation of these plans to protect resources, diminish conflicts, and provide use opportunities, is scheduled on all National Forests by December 31, 1976.

The Forest Service now employs 19 professional archeologists to provide technical leadership in inventory and management of cultural resources (Historic Preservation Act of 1966 and Executive Order 11593 of 1971). This program will aid in meeting obligations to survey for presence of cultural resource values in advance of earth-disturbing undertakings. In addition to inventorying cultural resources, those sites qualifying will be nominated to the National Register of Historic Places and will be accorded protective processes in cooperation with the President's Advisory Council on Historic Preservation.



Examples of Recent Accomplishments

- (1) Completed management plans for 22 wildernesses and 3 National Recreation Areas.
- (2) Initiated wilderness reviews on 20 new wilderness study areas, with 14 essentially completed.
- (3) About 3 percent of the National Forest System received cultural resource reconnaissance or survey coverage. Eighteen sites were placed on the National Register of Historic Places.
- (4) Completed about two-thirds of the current landscape management training program.
- (5) Implemented the visual management system for identification and classification of scenic quality in all regions.
- (6) Completed 4 parts of the landscape management guidelines. The remaining 7 chapters range from 10 to 75 percent complete.
- (7) Provided over 200 million visitor days of recreation use in 1975 on National Forest System lands (about 70 million visitor-days at developed sites and 130 million in dispersed areas).



WILDLIFE AND FISH HABITAT MANAGEMENTPermanent  
full-time  
positions

1975 .....	\$9,459,000	352
1976 .....	10,912,000	394
Transition quarter .....	(3,081,000)	
1977 .....	13,500,000	419
Change from 1976 .....	<u>+2,588,000</u>	<u>+25</u>

An increase of \$2,588,000, with an increase of 25 permanent full-time positions, is proposed as follows:

- (1) For cooperative habitat restoration and development on 8.8 million acres and for additional work to comply with the Endangered Species Act, \$1,366,000.
- (2) To provide for coordination of fisheries and wildlife management, within the the Forest Service, with timber management, road construction, and related resource activities, \$754,000.
- (3) To provide for the costs of the pay increase effective October 1975 (Executive Order 11883), \$468,000.

The planned levels of financing follow (in thousands of dollars):

	<u>FY 1975</u>	<u>FY 1976</u>	<u>Transition quarter</u>	<u>FY 1977</u>	<u>Change from 1976</u>
Coordination and cooperation (internal and external) .....	\$5,269	\$5,752	\$1,681	\$6,752	+\$1,000
Habitat restoration and develop- ment .....	3,257	3,280	900	4,201	+921
Endangered and other threatened species .....	933	1,880	500	2,547	+667
Total .....	<u>9,459</u>	<u>10,912</u>	<u>3,081</u>	<u>13,500</u>	<u>+2,588</u>
Operation and maintenance .....	6,002	7,256	2,081	8,790	+1,534
Capital investment .....	3,457	3,656	1,000	4,710	+1,054
Total .....	<u>9,459</u>	<u>10,912</u>	<u>3,081</u>	<u>13,500</u>	<u>+2,588</u>

GOAL: To improve and expand management programs to enhance fish and wildlife populations on public lands administered by the Forest Service, as demanded by consumptive and nonconsumptive users.

Program Description

The Forest Service administers the land and water upon which about one-seventh of the fish and wildlife-oriented recreation of the United States is generated. There are over 45 million acres of big game range, 43 million acres of small game range, plus 83,000 miles of fresh water streams, 1.8 million acres of natural lakes and 880,000 acres of reservoirs. All of these acres provide habitat in some form and condition for many species of fish and wildlife. Habitat improvement projects are an important part of multiple use management of these lands.

Land and water resources administered by the Forest Service in 1975 provided 14.4 million hunter, 16.4 million fishing, and 19.6 million visitor-days of nonconsumptive use. <sup>1/</sup>

<sup>1/</sup> The visitor-day is a unit of measure amounting to 12 hours.





In compliance with the Endangered Species Act of 1973 (87 Stat. 884) 36 endangered species have been identified on these public lands. Planning and subsequent work programs under this Act have just begun. Although several small programs are in effect, comprehensive management programs are evolving in cooperation with the Fish and Wildlife Service of the Department of the Interior and the States.

As directed by Public Law 93-452 (Sikes Act), plans for intensified cooperative management of habitat on lands administered by the Forest Service have been completed with 10 States with an estimated 20 more to be completed during calendar year 1976.

Fiscal year 1977 program provides for wildlife and fish habitat improvement as follows:

	<u>Thousand Acres</u>
Land treated in which wildlife habitat coordination was planned and used .....	8,624
Direct habitat development .....	218

#### Examples of Accomplishments

Management of the endangered Kirtland's warbler in Michigan, by manipulation of its habitat, dominated the wildlife activities on the Huron National Forest this past year. Prescribed burning, planting, and timber sale preparation in jack pine stands were accomplished on over 1,000 acres during the year. The Forest Service, in cooperation with the U.S. Fish and Wildlife Service and the Michigan Department of Natural Resources, published a booklet on the Kirtland's warbler.

The development of a "snag" (dead and dying mature trees important for nesting and feeding of certain birds) policy in the Pacific Northwest region has given new and positive direction to nongame wildlife habitat management. The policy sets minimum criteria for the preservation and management of snags for wildlife. Implementation of the policy will provide for maintaining populations of all snag dependent wildlife.

The National Marine Fisheries Service is cooperating with the Forest Service on a survey and inventory of deactivated log transfer facility sites in southeast Alaska. The study aims to provide information on the impact of debris on marine organisms and habitat by studying species succession and recolonization.

#### Work accomplishments during fiscal year 1974 (latest figures available)

A summary of total wildlife and fish habitat acres improved follows:

Food and cover development .....	478,629
Fish stream improvement .....	2,939
Fish lake improvement .....	11,262
Wetland improvement .....	4,527

Also, 3,369,000 acres of wildlife habitat were improved through coordination with other land resource uses and development.



RANGELAND MANAGEMENT

		Permanent full-time positions
1975 .....	\$17,870,000	604
1976 .....	19,007,000	579
Transition quarter .....	(5,313,000)	
1977 .....	23,451,000	624
Change from 1976.....	<u>+4,444,000</u>	<u>+45</u>

An increase of \$4,444,000, with an increase of 45 permanent full-time positions, is proposed as follows:

- (1) For initiation of range improvements designed to increase production of forage, \$956,000.
- (2) For accelerating treatment of rangeland in low ecological condition, \$532,000.
- (3) For increases in resource planning, management, and maintenance, \$2,260,000.
- (4) To provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$696,000.

	<u>FY 1975</u>	<u>FY 1976</u>	<u>Transition quarter (in thousands)</u>	<u>FY 1977</u>	<u>Change from 1976</u>
Operation and maintenance ..	\$15,558	\$14,980	\$3,885	\$18,468	+\$3,488
Capital investment .....	2,312	4,027	1,428	4,983	+956
Total .....	<u>17,870</u>	<u>19,007</u>	<u>5,313</u>	<u>23,451</u>	<u>+4,444</u>

GOAL: To produce forage for livestock consistent with capability of the range and its environmental needs, and at a cost which is competitive with that on non-Federal rangelands.

Increased availability of range grazing on the National Forest System could contribute substantially toward meeting world food needs while contributing significantly to conservation of fossil fuel energy.

Rangelands in low ecological condition will be brought to satisfactory condition and managed for livestock grazing, watershed, wildlife, and other purposes.

Management of rangeland, including revegetation and restoration projects, will be consistent with protection of endangered and threatened plants and animals and the preservation of sites of historical value. Changes in the composition of vegetation will be planned in a manner which will maintain the natural scenic values of the range.

Specific long-term objectives of rangeland management are:

- (1) Production. Sustained annual production between 17.7 and 20.4 million animal unit months of livestock grazing by the year 2000.
- (2) Environment. Correcting unsatisfactory ecological conditions on 15.3 million acres of rangeland. Investments in range development and improved livestock management or reduction or elimination of livestock grazing where the cost of correction is excessive will be the techniques used.



- (3) Social well-being. Benefiting local and regional ranch communities through the permitted use of National Forest System land. This will include promotion and demonstration of improved management and conservation on intermingled or associated rangelands.

#### On-going Programs

The National Forest System Rangeland Management Program encompasses approximately 12,000 range allotments scattered throughout 38 States. Some 16,000 ranchers graze more than 1.4 million cattle and 1.6 million sheep on these lands under paid permit for an annual total of approximately 11.3 million animal unit months of grazing.

The 12,000 allotments covering 100 million acres of forest-range provide grazing essential to the operation of ranches owned by Forest Service permittees. Without the National Forest System grazing, many of these ranches would not be viable economic ranching units.

#### Expanding Program Dimensions

Meeting the expanding needs for grazing must be efficiently achieved. This will be accomplished by finding and developing the best places for range investments. Some lands with low relative potential will have reduced grazing, while grazing will be added to other lands not currently grazed. The intensity of management will change on many allotments. In some instances, intensity of management will increase in order to expand production, while on other allotments management, particularly in the area of physical improvements, will be decreased in order to achieve program effectiveness.

The net change in animal unit months of grazing production in the long run will increase to achieve the goal of up to 20.4 million animal unit months by year 2000. The rate of increase in grazing available in response to increased investment and management is limited by the natural growth rate of the vegetation; therefore, increased animal unit months of grazing are not shown for 1977. The results of this year's investments will become available over the next three to ten years.

A plan for testing recommended management levels on various sites to be initiated during fiscal year 1976 is included in the program. Through accelerated development, management and monitoring of results in several validation areas, the appropriateness of management levels and the actual costs and returns will be assessed. Results of this validation program will be used to modify management in other areas and improve the overall efficiency of the range program.

Recent and planned accomplishments are:

	<u>1975</u>	<u>1976</u>	<u>Transition quarter</u>	<u>1977</u>
Improved management maintained to date (No. of allotments) .....	6,403	6,982	6,982	7,401
Improved management started (No. of allotments) .....	579	419	- -	483
Rangeland in low ecological condition, feasible for restoration and livestock grazing brought under improved management to date (thousand acres) .....	2,594	2,956	3,054	3,629
Range revegetated (thousand acres) .....	112	75	20	90
Animal unit months of grazing produced (millions) .....	11.3	11.3	5.3	11.3



SOIL AND WATER MANAGEMENT

		Permanent Full-Time Positions
1975 .....	\$16,506,000	<u>549</u>
1976 .....	17,774,000	565
Transition quarter .....	(5,278,000)	
1977 .....	19,542,000	577
Change from 1976 .....	<u>+1,768,000</u>	<u>+12</u>

A net increase of \$1,768,000, with an increase of 12 permanent full-time positions, is proposed as follows:

- (1) Increase of \$3,156,000 for costs associated with providing scientific soil and water knowledge in support of timber, range, recreation, and wildlife and fish activities.
- (2) Increase of \$696,000 to provide for costs of the pay increase effective in October 1975 (Executive Order 11883).
- (3) Decrease of \$899,000 for watershed restoration and improvement.
- (4) Decrease of \$109,000 for wild and scenic river studies.
- (5) Decrease of \$540,000 for environmental analysis and construction liaison.
- (6) Decrease of \$536,000 for soil stabilization and reservoir protection related to projects of water resource development agencies.

GOAL: To maintain and enhance the environmental quality of National Forests for optimum public use and services through the application of scientific geology, hydrology, and soils knowledge to resource protection and development programs.

Program for fiscal year 1977, and previous periods follows:

	<u>1975</u>	<u>1976</u>	Transition quarter (in thousands)	<u>1977</u>	Change from <u>1976</u>
Soil and water science for management support .....	\$12,445	\$13,358	\$4,062	\$16,670	+\$3,312
Watershed restoration and improvement .....	2,479	2,750	716	1,851	-899
Wild and scenic rivers studies ...	758	500	150	391	-109
Soil stabilization and reservoir protection related to projects of water resource development agencies .....	824	1,166	350	630	-536
Total .....	<u>16,506</u>	<u>17,774</u>	<u>5,278</u>	<u>19,542</u>	<u>+1,768</u>
Operation and maintenance .....	10,558	11,908	3,622	15,651	+3,743
Capital investment .....	<u>5,948</u>	<u>5,866</u>	<u>1,656</u>	<u>3,891</u>	<u>-1,975</u>
Total .....	<u>16,506</u>	<u>17,774</u>	<u>5,278</u>	<u>19,542</u>	<u>+1,768</u>





Program Description

The objectives of soil and water management are accomplished primarily by providing Forest Service land managers engaged in the various land management activities the scientific advice and technical direction to help avoid land management problems. These services include:

- (1) Surveillance and monitoring activities to fulfill mandatory requirements for maintaining the quality of natural waters.
- (2) Providing knowledge of soil and water conditions and trends on which to base management decisions.
- (3) Conducting inventories and surveys to acquire basic data on soil and water resources and interpreting data for short- and long-term planning.
- (4) Identifying water needs for National Forest purposes in areas where State water adjudication proceedings are on-going.

More directly, the program restores degraded watershed lands caused by man's activities or natural disasters, to alleviate flooding and improve the quality and quantity of water. The program also directly affects water quantity and quality through scientific water management techniques such as prescriptions for timber cutting patterns, cover manipulation for increased water yield, and snowpack management.

The need for these services parallels the intensity of the various land management activities that are served by the program. The fiscal year 1977 funding level will provide services to most of the current land management activities.

The backlog of degraded watershed lands needing cultural treatment amounts to over eight million acres. The direct restoration work being done in fiscal year 1977 includes maintenance and reinforcement of past work to assure project success. Planned activities during fiscal year 1977 will restore approximately 50,000 acres. Included is capital investment work on 30,000 acres of initial treatment, and maintenance and reinforcement of existing measures on 20,000 acres.

The benefits from the soil and water program accrue both onsite and offsite. The onsite benefits are primarily related to maintenance and/or enhancement of the soil and water resources. A sustained yield of quality products from the National Forests is dependent on the maintenance of soil productivity. Currently, soil and water resource management prescriptions are prepared for about 3 million acres of National Forest System lands annually. In addition, benefits accrue from providing a quality environment for recreation use and other outdoor activities.

Offsite benefits from the program accrue to the downstream user of water flowing from National Forest lands. The 390.4 million acre-feet of high quality water produced from the National Forest is an example of the importance of water in the National Forest programs. Costs for water treatment and maintenance of irrigation equipment are reduced, and the useful life of reservoirs is extended. In addition, fishery and wildlife values are enhanced and dangers from floods are minimized.

Extreme demands are being put upon available water supplies, particularly in the West. The Congress and the courts have determined that the United States has a right to reasonable use of water on National Forests reserved from the public domain except those waters appropriated before the National Forests were created. Efforts are underway to obtain sufficient quantities of water in accordance with legal authority for the administration and development of the National Forest System. This project on a watershed basis includes:

- (1) An inventory of present and foreseeable needs.
- (2) A determination of water availability.
- (3) An assessment of the potential for increasing yields in water-short areas.
- (4) Action to secure the water needed for National Forest purposes.



The western States want the Forest Service to complete the inventory program as rapidly as possible. A major part of the total project effort is expected to be completed by fiscal year 1979.

Additional work is developing due to adjudication proceedings in some western States. Increasing judicial and administrative action in water rights is anticipated, both on lands reserved from the public domain and on acquired lands, over the next several years.

Another portion of the soil and water program is concerned with the environmental analysis of proposed water developments and the liaison with the construction agency.

Essential land treatment and related measures are planned at small watershed projects authorized by PL-566 and PL-534, and at other major reservoir projects. Treatment measures will include soil stabilization and vegetation management to improve water quality and quantity. Also, in order to provide for public safety and user enjoyment of reservoir areas, debris and stump removal will be accomplished on about 10,000 acres.

Wild and Scenic Rivers Act (PL 90-542, as amended). The purpose of this activity is to carry out comprehensive studies of rivers designated as potential additions to the National Wild and Scenic Rivers System. This 1968 Act designated 27 rivers for detailed study as potential additions to the National System. The Act was amended by PL 93-621, January 3, 1975, to add 29 rivers for study. The Forest Service is the lead agency for the Department of Agriculture's river study work on nine of the original 27 study rivers and is lead agency for 13 of the additional 29 and will provide joint leadership on three.

All studies are cooperative efforts with States, Federal agencies, and interested groups and individuals. The study work provides for the employment of local people to collect resource data and data on the resource use and capability. The program effort during fiscal year 1977 will essentially complete work on the original nine studies and on two of the additional rivers under Forest Service leadership. In addition, some work will be done on the remaining river studies with target dates for completion during fiscal years 1978 and 1979.

#### Examples of Recent Accomplishments

Soil resource inventories were conducted on 21.0 million acres; detailed soil surveys were conducted on about 0.4 million acres in cooperation with the Soil Conservation Service and the State Agricultural Experiment Station; and water resource inventories were conducted on 18.0 million acres.

Resource protection requirements and design services were provided by geologists, hydrologists, and soil scientists on more than 9,000 projects.

Soil and water condition and trend observations along with monitoring effects of timber management, mineral developments, Boundary Waters Canoe Areas, and suspected pollution problem sites where people physically use the water resource are underway at 3,200 locations.

Cooperative studies are continuing with State Fish and Game Departments to determine minimum flows necessary for fish culture in connection with Federal Power Commission relicensing of "run of the river" power facilities.

Rehabilitation work is coordinated with other resource and service divisions to accomplish an integrated program of management under multiple use.



In fiscal year 1975, Forest Service crews treated and stabilized:

Acres of sheet eroded and deteriorated areas .....	31,000
Miles of streambanks and shorelines .....	106

Treatments to aid in restoring favorable watershed conditions on lands damaged by wildfire continued. Emergency measures (initial treatment on new burns and maintenance on older burns) were applied on 26,000 acres that required onsite protection to restore the hydrologic function and alleviate the potential for offsite damages.



MINERALS AREA MANAGEMENT  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$3,713,000	160
1976 .....	<u>6,589,000</u>	<u>282</u>
Transition quarter .....	(2,041,000)	
1977 .....	8,095,000	299
Change from 1976 .....	<u>+1,506,000</u>	<u>+17</u>

An increase of \$1,506,000 with an increase of 17 permanent full-time positions, is proposed as follows:

- (1) For minimizing impacts of mineral activities on surface resources, \$228,000.
- (2) For administration of reserved and outstanding mineral rights, \$175,000.
- (3) For planning and supervising reclamation, \$68,000.
- (4) For geologic and mineral inputs to land use planning, \$165,000.
- (5) For project geologic work, \$123,000.
- (6) For coordination of mineral activities with timber, recreation, wildlife and range management programs, \$435,000.
- (7) For costs of the pay increase effective in October 1975 (Executive Order 11883), \$312,000.

GOAL: Administer pertinent laws and regulations to permit the uninterrupted flow of National Forest System mineral resources to the Nation's economy while insuring adequate protection of the surface resources and the environment; eliminate unauthorized uses of Federal land which may be occupied under the guise of the mining laws for purposes unrelated to mineral development

Program Description

Due to the variety of its geologic environments, the National Forest System is one of the Nation's most important reservoirs of mineral resources. Nearly the full gamut of metallic and related nonmetallic deposits are represented, as are fossil fuels, geothermal resources, and the country's principal phosphate fertilizer reserves.

Minerals area management during fiscal year 1977 will include:

- (1) Administration of the 1872 mining law.
- (2) Compliance and validity investigations on 5,800 mining claims.
- (3) Processing of 2,500 operating plans and notices of intention to operate on 50,000 mining claims.
- (4) Application processing and supervision of 13,800 oil, gas, phosphate, coal and geothermal leases.
- (5) Administration of reserved mineral rights including 3,170 coal, oil, gas, sand, gravel, and stone cases.
- (6) Administration of outstanding mineral rights including 1,950 cases.





- (7) 1,900 application and supervision cases for disposal of common variety mineral materials.
- (8) Prescription development and supervision on 5,580 acres involving surface mining and reclamation.

A tabular summary of the program follows:

Activities	FY 1975	Current Program FY 1976	Proposed Program		
			Transition quarter	FY 1977	Change from 1976
General (1872) mining laws administration .....	\$1,366,385	\$3,413,210	\$1,076,000	\$3,721,500	+\$308,290
Mineral leasing and geothermal acts administration .....	1,009,090	1,645,090	500,000	1,865,400	+220,310
Reserved mineral rights administration .....	138,250	181,600	52,800	347,100	+165,500
Outstanding mineral rights administration .....	92,825	95,060	27,200	178,300	+83,240
Minerals materials disposal (common varieties) .....	273,895	291,500	90,000	437,300	+145,800
Surface mining and reclamation .....	37,130	36,645	10,000	139,600	+102,955
Planning inputs, geologic aid, interpretations, and geologic support for other activities .....	795,425	925,895	285,000	1,405,800	+479,905
Total .....	3,713,000	6,589,000	2,041,000	8,095,000	+1,506,000

#### Mining Use Regulations and Supervision

For the first time, beginning on September 1, 1974, regulations were instituted for National Forest System lands to minimize adverse environmental impacts from activities conducted under the authority of the 1872 mining law. The regulations require those who want to conduct 1872 mining law activities to notify and obtain approval from the Forest Service before conducting surface disturbing operations.

In the last 10 months of fiscal year 1975, the Forest Service received more than 2,000 proposed operating plans or notices of intention to operate. Each of the filings necessitated a site-specific analysis in order to determine whether or not significant surface resource impacts were prospective. Based on a finding of significant impacts, more than 500 operating plans were required to be filed with the Forest Service. As of the end of fiscal year 1975, about 330 operating plans had been approved by Forest Service administrators.

#### Recent Accomplishments and Activities

Participated, with Department of the Interior agencies, in the completion of a draft environmental impact statement considering the development of phosphate resources in southeastern Idaho, including significant parts of the Caribou National Forest.



Made major contributions to a joint Federal-State study on the effects of coal development in the Northern Great Plains.

Under the Forest Service's Surface Environment and Mining (SEAM) program, completed a widely acclaimed publication called "Anatomy of a Mine--from Prospect to Production." The objective of the publication is to promote, through exposition in laymen's terms, a better understanding of applicable laws and regulations and the process of finding and developing a mineral deposit.

In furtherance of land use planning, entered into an agreement with the Geological Survey, permitting Forest Service field offices to store in and retrieve from the Survey's Computerized Resource Information Bank a wide variety of mineral resource information.

Coordinated a major exploration and development drilling program for coal on the Manti-LaSal National Forest, Utah, in furtherance of future nominations for coal leasing, under the Bureau of Land Management's Energy Minerals Activity Recommendation System (EMARS).

Worked with a mining company in an environmentally sound conversion of an underground copper mine to an open pit operation at Cuprum, Idaho.

Continued work with Interior, EPA and other Federal departments and the State of Wyoming in planning environmentally acceptable development and production of coal and associated facilities in the Thunder Basin National Grasslands, Wyoming.



FOREST FIRE PROTECTION

		Permanent full-time positions
1975 .....	\$37,202,000	1,126
1976 .....	38,709,000	1,069
Transition quarter .....	(12,489,000)	
1977 .....	42,224,000	1,090
Change from 1976 .....	+3,515,000	+21

An increase of \$3,515,000, with an increase of 21 permanent full-time positions, is proposed as follows:

- (1) To provide for air quality and smoke management planning as required by the National Environmental Policy Act of 1969, \$430,000.
- (2) Partial implementation of the National Fire Plan, \$1,310,000.
- (3) For fuel modification and fire management in support of the timber sale program, other resource systems, and land use planning, \$455,000.
- (4) To provide for costs of the pay increase effective in October 1975 (Executive Order 11833), \$1,320,000.

The proposed budget will be used to finance protection activities approximately as follows:

	1975	1976	Transition quarter (in thousands)	1977	Change from 1976
Air quality and smoke management	- -	- -	- -	\$430	+\$430
Fire prevention .....	\$8,075	\$8,179	\$2,572	8,802	+623
Fire detection .....	3,303	3,350	1,053	3,550	+200
Fire attack forces .....	17,617	17,490	5,489	19,273	+1,783
Aviation operations .....	5,138	4,804	1,945	4,804	- -
Fuel modification .....	2,569	4,350	1,300	4,805	+455
Equipment development and testing	500	536	130	560	+24
Total .....	37,202	38,709	12,439	42,224	+3,515
Operation and maintenance .....	34,133	33,823	11,059	36,859	+3,036
Capital investment .....	3,069	4,886	1,430	5,365	+479
Total .....	37,202	38,709	12,489	42,224	+3,515

GOAL: Through land use plans and fire management plans, protect people, property and resources from fire. Using fire by prescription, increase resource productivity.

This program, through implementation of the National Fire Plan and National Aviation Plan, provides management of fire for beneficial effects and for resource protection on 180 million acres of National Forest lands and provides assistance in the protection for an additional 22 million acres. The program is designed to lower the flammability of forest and rangelands through accelerated fuel modification and expanded fire prevention.

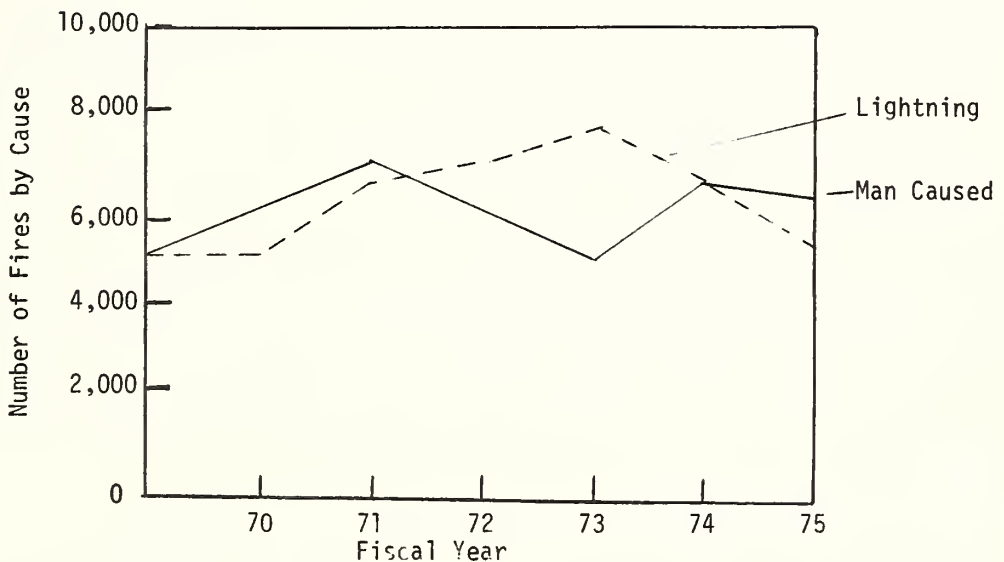
Annual losses from forest fire vary according to weather, forest vegetation conditions, fire occurrence and firefighting preparedness. Total losses have exceeded protection cost by \$480 million in the period 1970-1974.



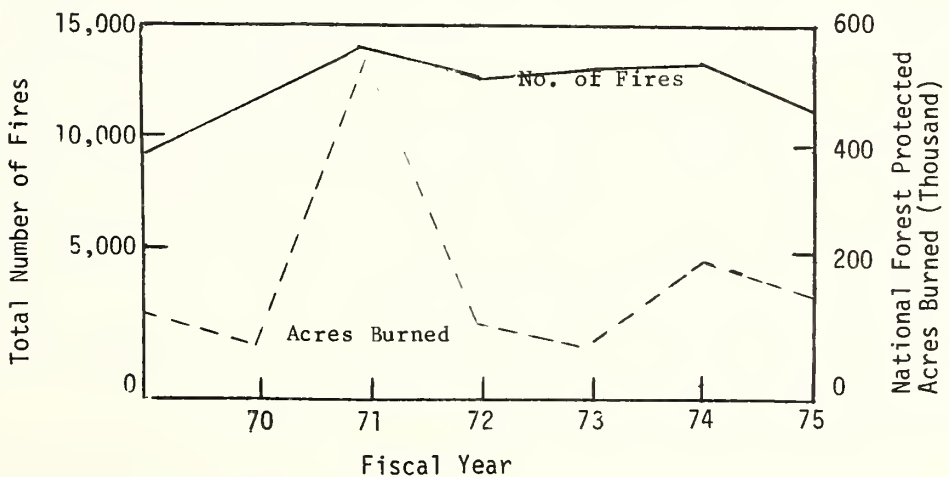
The quality of the environment is improved through scientific smoke management and application of sound fire management practices, including the prescribed use of fire. Uncontrolled fires become less tolerable each year as the interface between rural and urban areas increases. The increasing value of public land, increased value of improvements, and increasing year around use by the public, is increasing the importance of protecting public lands from wildfire.

The threat of fire to the timber resource becomes more critical as more areas are harvested, public access is expanded when roads are built into remote areas, and intensive management is applied to more forested areas. Protection benefits the timber resource and thusly the lumber and home building industries. Management of the timber resources requires the support of an effective program for lowering the flammability of forest lands through accelerated fuel modification and expanded protection.

NUMBER OF LIGHTNING AND  
MAN CAUSED FIRES BY FISCAL YEARS



TOTAL NUMBER OF FIRES AND NATIONAL FOREST  
PROTECTED ACRES BURNED BY FISCAL YEARS







GENERAL LAND MANAGEMENT ACTIVITIES

Project (8)

Permanent  
full-time  
positions 1/

1975 .....	\$26,984,000	843
1976 .....	30,723,000	893
Transition quarter .....	(5,876,000)	
1977 .....	35,647,000	924
Change from 1976 .....	<u>+4,924,000</u>	<u>+31</u>

A net increase of \$4,924,000, with an increase of 31 permanent full-time positions, is proposed as follows:

- (1) Increase to improve the standards of administration of special uses and maintain minimum standards of air and water quality required by law on 80 percent of the permits outstanding, \$772,000.
- (2) Increase for maintenance of fire and general purpose facilities, including communications, required to maintain health and safety, and protect capital investment, \$1,300,000.
- (3) Increase for marking land lines and monuments, \$306,000.
- (4) Increase of \$1,190,000 for implementation of an Interagency Geometronics Center in Utah.
- (5) To reimburse the Employees' Compensation Fund, \$915,000 increase.
- (6) To provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$1,074,000 increase.
- (7) Decrease of \$633,000 in the land exchange program.

The program follows:

	<u>1975</u>	<u>1976</u>	<u>Transition quarter (in thousands)</u>	<u>1977</u>	<u>Change from 1976</u>
(1) Land classification .....	\$844	\$884	\$220	\$900	+\$16
(2) Land exchange .....	3,937	4,130	665	3,667	-463
(3) Land status records and cadastral engineering (land line location) .....	4,473	5,393	793	5,942	+549
(4) Geometronics .....	1,388	1,455	220	2,705	+1,250
(5) Maintenance of improvements for fire and general pur- poses (including communi- cations) .....	9,593	10,746	3,058	12,376	+1,630
(6) Special uses--non-recreation	3,869	4,784	920	5,811	+1,027
(7) Payments to Employees' Compensation Fund .....	2,860	3,331	- -	4,246	+915
(8) Bicentennial and Forestry Centennial .....	20	- -	- -	- -	- -
Total .....	<u>26,984</u>	<u>30,723</u>	<u>5,876</u>	<u>35,647</u>	<u>+4,924</u>
Operation and maintenance .....	22,511	25,330	5,083	29,705	+4,375
Capital investment .....	4,473	5,393	793	5,942	+549
Total .....	<u>26,984</u>	<u>30,723</u>	<u>5,876</u>	<u>35,647</u>	<u>+4,924</u>

1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1975, 14; 1976, 14; 1977, 14.



GOALS: Provide for orderly real estate management of the National Forest System while protecting the resources and securing compliance with applicable air and water quality standards, to provide for land classification, land exchange, boundary adjustments, landline location, a land record system, maps and surveys for managing and administering primary activities on National Forest System lands.

To support the Forest Service land management programs by providing adequate maintenance of fire, administrative, and other purpose improvements.

Issue and administer land use permits when consistent with the public interest and good land management practices, for such purposes as assistance to the economic development of rural areas, energy development, antiquities study, and communications and utilities transmission.

(1) Land classification (\$900,000, an increase of \$16,000 for increased pay costs.)

The function of land classification is to structure and recommend programs concerning the extent, location, and composition of the National Forest System that will most effectively further national objectives. Purposes and activities are directed toward improving the landownership pattern to facilitate protection, management, development and use of recreation, timber, range forage, water, and wildlife resources, all of which can contribute significantly to growth of rural economies. Another activity will be to survey the degree of utilization of public lands pursuant to E.O. 11724 of June 25, 1973.

Financing at the level indicated will enable Forest Service to meet most critical needs for:

- (a) Continuing involvement in Alaska and cooperation with the Department of the Interior and Congress in considering proposals and alternatives for additions of 80 million acres of Federal lands to the four national conservation systems, including new National Forests, as provided in the Alaska Native Claims Settlement Act. A completion of Congressional action on these proposals by December 18, 1978, is contemplated in the Act.
- (b) Consideration of application for land by the State of Alaska, which is authorized to select up to 400 thousand acres of National Forest land under the Alaska Statehood Act.
- (c) Identification and detailed analysis of areas within and adjacent to National Forests and National Grasslands to determine the changes which should be made in landownership patterns to increase efficiency of administration and to facilitate accomplishment of national objectives. Of particular urgency are intensive unit planning projects and participation in joint agency planning efforts.
- (d) Evaluation of possible transfer of Federal lands to or from the National Forest System, including consideration of lands claimed by Indians, and jurisdictional transfers at numerous Federal water control projects particularly important for outdoor recreation.
- (e) Analysis and classification of lands with potential for national recreation areas, monuments, wildlife preserves, or other special status.

Continual review of the location and extent of the National Forest System components is desirable to determine the best land use and ownership patterns considering new developments and needs. The 155 National Forests and 19 National Grasslands located in 44 States and Puerto Rico include nearly 40 million acres on non-Federal land. Programs for consolidations of landownership within existing boundaries of these units need to be based upon consideration of careful analyses of their short- and long-range effects.



Examples of Recent Accomplishments

Review, study and/or analysis of:

- (1) Disposition and stewardship of Bankhead-Jones Farm Tenant Act, Title III, lands, including lands at Camp Gruber, Oklahoma, and Moody Air Force Base, Georgia.
  - (2) Six legislative proposals for National Recreation Areas.
  - (3) Possible transfers of 400,000 acres of land between Bureau of Land Management and Forest Service in Utah, Nevada, and Idaho.
  - (4) Boundary adjustments on eight National Forests.
  - (5) Three interchanges with Corps of Engineers.
  - (6) Impact of amendments to the Alaska Native Claims Settlement Act concerning native selection of National Forest lands in Alaska.
  - (7) Validity of Indian claims by the Havasupai and San Carlos Indians.
- (2) Land exchange (\$3,667,000, a decrease of \$633,000 in the program and increase of \$170,000 for pay costs, with a decrease of 8 permanent full-time positions.)

The continuing goal of the exchange program is to effect a system of landowner-ship which will result in more effective management and utilization of both National Forest and private lands. For every dollar expended there is a savings in cost avoidance of \$10 involving such items as roads, landline location, special use permits, claims and trespass.

Carefully designed exchanges can enhance the development and expansion of communities adjacent to and within the National Forests.

In fiscal year 1977 this program will involve the examination and appraisal of 230,000 acres and the processing of 200 exchanges.

- (3) Land status records and cadastral engineering (land line location) (\$5,942,000, an increase of \$306,000 for marking and posting property lines and \$243,000 for increased pay costs, with an increase of 3 permanent full-time positions.)
- (a) Land status records. This is the record of the interests in land that the Forest Service must administer. These records provide the basis of all National Forest System land use and resource management. It is also the basis for distribution of the 25 percent resource receipts to the States. About 800 township plats will be completed in fiscal year 1977.
  - (b) Cadastral engineering (landline location). There are 272,500 miles of property boundary between National Forest System lands and adjoining lands owned by others. Ten percent of these property lines are presently located and marked properly. The continuing good of this program is to properly mark and post all property lines preceding timber sale and other resource activities, including minerals and energy-producing areas. In addition, property lines must be established to process an estimated 45,000 occupancy trespasses and resolve 2,000 title claims to National Forest lands.



Since 1966, an annual transfer of the appropriation for this program has been made to the Bureau of Land Management, Department of the Interior. The money was used for urgent cadastral surveys to reestablish property corners that were determined to be lost through the Forest Service corner search activity. In fiscal year 1977, \$515,000 is planned for transfer to BLM.

The work to be done under the cadastral program is shown in the following table. This work is carried on in every State in which the Forest Service administers land.

	<u>Work Proposed</u>			
	<u>FY 1975</u> <u>(Accomplished)</u>	<u>FY 1976</u>	<u>Planned</u> <u>Transition</u> <u>quarter</u>	<u>FY 1977</u>
<u>Corners (Nos.)</u>				
Search .....	23,000	25,000	3,500	18,800
Remonument .....	13,735	15,000	1,100	10,000
Establish or reestablish	4,238	7,000	800	6,000
<u>Boundaries (miles)</u>				
Locate and mark:				
To full standard ..	2,494	2,400	300	5,700
To partial standard	580	500	100	650
Maintenance .....	957	1,000	430	1,980

#### Examples of Recent Accomplishments

The accomplishment since 1958 in comparison to the total inventory of property corners and lines is as follows:

Corners searched ..... 29 percent of total  
Property lines marked ..... 13 percent of total

The backlog has been programed in areas of most urgent need, thus obtaining maximum immediate benefits. Capital investment work is programed to coordinate other resource activities.

One-third of the corners revealed as missing by the corner search phase to date have been reestablished by cadastral surveys.

- (4) Geometronics (\$2,705,000, an increase of \$1,190,000 for implementation of an Interagency Geometronics Center in Utah and an increase of \$60,000 for increased pay costs, with an increase of 16 permanent full-time positions.)

Multiple use planning requires a knowledge of the terrain, the extent and location of the natural resource and how they are tied in with, and related to, existing and planned management programs within a planning unit. Environmental information is essential in the planning of timber sales and related facilities.

In response to this need, a layered mapping system consisting of basic data plates (culture, land grid, and drainage) is being developed. The functional data plates (recreation information, fire closures, range types, and soils) are combined with the appropriate basic data plates to produce the required management tool. The objective is to incorporate all the functional map efforts into a coordinated system tied to a common map base from a central production unit.





In line with the "Report of the Federal Mapping Task Force on Mapping, Charting, Geodesy and Survey", July 1973, Office of Management and Budget, the Department of Agriculture has begun to centralize this highly technical and specialized activity. The Geometronics Service Center (GSC) is to provide those products unique to the Department of Agriculture requirements and not available from other Federal agencies. The implementation of GSC has required a redirection of the identification of financing geometronic activities. In the past the products were multi-financed at the regional and forest level on a project support basis. For fiscal year 1977, the geometronic costs are identified as a single budget activity item. These costs include charges connected with the startup of GSC and reflect long-term budget direction for continued operation.

The establishment of GSC will provide significant reduction of field operations and more effective utilization of a limited manpower resource within the Forest Service. The goal for fiscal year 1977, compared with other years, is:

	<u>1975</u>	<u>1976</u>	<u>1977</u>
Resource inventory (primary series) 1:24,000			
scale quadrangles .....	708	700	1,691
General management (secondary series) forests .	12	13	47
Regional series .....	1	- -	- -
Orthophotos (models) .....	- -	- -	1,200

This will be accomplished by utilizing the primary map data plates and resource inventory information acquired on the forests.

- (5) Maintenance of improvements for fire and general purposes (including communications) (\$12,376,000, an increase of \$1,300,000, with an increase of 10 full-time positions, for maintenance of fire and general purposes facilities required to maintain health and safety and protect capital investment and \$330,000 for increased pay costs.)

This program provides for maintenance and for minor betterment, minor construction or replacement of buildings, utilities, pollution abatement facilities, airfields, communications systems and related structures of a fire and general purpose nature throughout the National Forests and National Grasslands. Individual projects authorized for construction herein are limited to those that are of a fire and general purpose nature and are less than \$25,000 each. The maintenance of the fire and general purpose facilities is essential to the achievement of program outputs and the increase reflects the funding necessary to support the goals selected based on the Forest and Rangeland Renewable Resources Planning Act. The value of existing improvements exceeds \$350 million.

It is essential that the physical plant, upon which all Forest Service programs depend, be brought to acceptable standards and be maintained at that level. These funds will be used toward maintaining the following:

Type of facility

Fire lookouts, towers, and observatories .....	1,500
Dwellings, cabins, barracks, and trailers .....	5,900
Field offices .....	800
Storage and service buildings .....	8,000
Water and sewer systems .....	5,000
Radio units .....	22,100
Landing fields and heliports .....	500
Miles of telephone lines .....	7,500
Miles of administrative fences .....	1,200



- (6) Special uses--non-recreation (\$5,811,000, an increase of \$772,000 to improve the standards of administration of special uses with emphasis on mitigation of long-term environmental impacts, and \$255,000 for increased pay costs, with an increase of 10 permanent full-time positions.)

Effort will be directed to those uses essential to the Nation and its communities' well being. Priority will be given to energy development and conservation uses such as oil and gas transmission lines, coal development and land reclamation, communications systems, and transmission and water developments. Permitted uses will be accompanied by the necessary administrative attention to assure minimum levels of land and resource stewardship.

#### On-Going Program

Under this program applications are reviewed, and special use permits are issued and administered for a variety of uses which support development and utilization of energy resources, economic development of rural areas and provide a land base on utilities and communications. These uses include:

- (1) Agriculture
- (2) Community improvements
- (3) Industry
- (4) Public information
- (5) Research study and training
- (6) Transportation
- (7) Water resources

In fiscal year 1977, more than 54,000 special use permits covering over 6.2 million acres will be in force.

Of particular importance is the impact on National Forest lands and resources caused by the energy crisis and the attendant need to protect the quality of air and water. Many land uses are associated with coal development in Western United States, as well as gas from Alaska to the lower 48 States and its distribution therein. Additional impacts are created by the need to transmit electrical energy and support mineral extraction and processing operations. The proposed increase of \$772,000 will bring administration of 80 percent of the existing permits to a minimum standard that conforms with law, and protection of the environment and timely termination of the use.

The trans-Alaska pipeline authorization (PL 93-153) provides for reimbursement to the U. S. Treasury for all extraordinary work relating to these rights-of-way. The Forest Service will spend about \$500,000 in fiscal year 1977 on such work from within the total available under this item. There are no specific provisions in the law which require reimbursement of costs for other rights-of-way or types of uses. Response to such applications must be made from existing funds regardless of the number or complexity of applications. Although the intent of Congress was expressed in the Independent Appropriation Act of 1952 that Government agencies obtain reimbursement when goods and services are provided to persons beyond the level provided to the public at large, it has not been stated elsewhere or specifically as in PL 93-153. We continue to seek ways for the applicant to share the burden of these costs.

Fiscal year 1975 receipts from special land uses were \$1,884,304. The fee value of free permits authorized by law, to Government agencies or for public use is estimated to be about \$3 million. It is estimated that fiscal year 1977 receipts will be \$2 million.

With the resource impacts caused by the energy crisis and limited funding, it will be necessary to rely on industry to finance basic resource data on soils, geology, vegetation, cultural values, hydrology, weather, air and water pollution, in order to prepare timely and responsive environmental impact statements in compliance with NEPA.



From the current budget about \$150,000 will allow proper administration of archaeological permits which are issued in accordance with the Antiquities Act of 1906.

(7) Payments to Employees' Compensation Fund (\$4,246,000, an increase of \$915,000.)

These funds will be used to reimburse the Employees' Compensation Fund, Department of Labor, in accordance with PL 86-767 (5 USC 785), which was enacted September 13, 1960, for benefit payments made from that fund to employees of the Forest Service who are injured while in the performance of duty. The 1976 payment was \$3,330,883.



FIGHTING FOREST FIRES  
(All operation and maintenance)

		<u>Permanent Full-Time Positions</u>
1975 .....	\$104,275,000	543
1976 .....	4,275,000	553
Transition quarter .....	(4,275,000)	
1977 .....	<u>4,275,000</u>	<u>553</u>

No increase is proposed.

This program provides an initial amount for suppressing forest fires on or threatening National Forests and Grasslands which cannot be handled by the regular forest fire protection program. This initial appropriation is supplemented each year to the extent necessary to cover all emergency forest firefighting costs.

Included are expenditures for men and equipment to control large fires. In addition, when critical conditions present an unusual threat, men are engaged in special efforts to prevent fires and temporary forces are used at strategic locations to be available to attack fast-spreading fires.

The volume and scope of emergency forest firefighting varies annually according to severity of burning conditions and the extent of the forest fire protection program. This program and the forest fire protection program are directly related. The cost of fire protection on the National Forests and Grasslands is the sum of the two programs.

Calendar Year 1975 Fire Season

Spring burning conditions were below normal throughout the West. However, drier than normal conditions in Minnesota in May enabled the Little Sand Lake fire to spread to 1,185 acres.

By mid-June, the Southwest began to dry out and the Willow fire on the Apache-Sitgreaves National Forest in New Mexico burned 2,200 acres. The heavy summer rains did not accompany the thunderstorms in this area this year and the fire conditions continued to increase throughout the summer, eventually resulting in the 13,700 acre Bob fire on the Tonto National Forest in New Mexico.

California experienced a normal summer fire season, and had seven fires over 1,000 acres. The two largest during the summer were the 4,490 acre Lake Hemet fire on the San Bernardino National Forest and the 12,590 acre Flat fire on the Sequoia National Forest.

The Rocky Mountains had a late Indian summer with accompanying warm dry conditions, resulting in the 1,900 acre Meadowlark Lake fire on the Big Horn National Forest and the 4,483 acre Red Dirt fire on the White River National Forest in Colorado. The Red Dirt fire was the largest fire on record on National Forest land within the State of Colorado.

The Pacific Northwest did not have large fires this year because the fuels were periodically dampened by occasional rains. No large fires occurred in this area or Alaska.

The Southeast experienced a near normal fire season. Increased prevention efforts through additional manning held the number of man-caused fires at about the five-year average.





Through October 31, 1975, about 10,111 fires had burned 118,437 acres. This is a 22 percent reduction in the number of fires and a 44 percent decrease in the acres burned based on the past five-year averages. Of the total fires, 5,202 were man-caused, a 9 percent reduction from the five-year average of 5,729.

However, in November, the hot and dry Santa Ana winds blew in off the Great Basin Desert and drove two large fires through the brush fields of California into residential areas along the foothills of the Angeles National Forest. The Mill fire burned 46,000 acres and destroyed 42 homes and other structures. The Village fire burned 23,000 acres and one structure--the house which caught fire and ignited the holocaust. Control of the blazes was finally obtained by the coordinated efforts of 3,000 firefighters and 23 retardant aircraft including 4 Modular Airborne Fire Fighting System (MAFFS) units working along preconstructed fuelbreaks.

#### GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL--Fiscal Year 1975

Alabama .....	\$96,951
Alaska .....	91,312
Arizona .....	10,066,131
Arkansas .....	332,329
California .....	32,676,534
Colorado .....	1,023,449
Florida .....	327,355
Georgia .....	218,450
Idaho .....	9,493,750
Illinois .....	60,215
Indiana .....	28,608
Kentucky .....	193,774
Louisiana .....	89,705
Michigan .....	208,717
Minnesota .....	632,390
Mississippi .....	248,009
Missouri .....	284,297
Montana .....	4,596,794
Nebraska .....	53,993
Nevada .....	767,171
New Hampshire .....	3,095
New Mexico .....	5,973,729
North Carolina .....	504,083
North Dakota .....	19,589
Ohio .....	28,608
Oklahoma .....	49,728
Oregon .....	16,952,310
Pennsylvania .....	6,808
South Carolina .....	129,827
South Dakota .....	392,129
Tennessee .....	279,978
Texas .....	35,187
Utah .....	2,008,111
Vermont .....	14,330
Virginia .....	510,346
Washington .....	8,180,352
West Virginia .....	27,953
Wisconsin .....	91,993
Wyoming .....	1,124,071
Undistributed .....	<u>16,452,839</u>
Total .....	114,275,000

The amounts for 1976, transition quarter, and 1977 have not been distributed by States. Locations of emergency firefighting funds cannot be forecast with any degree of accuracy.



FOREST INSECT AND DISEASE MANAGEMENT  
(All operation and maintenance)

		<u>1/ Permanent full-time positions</u>
1975 .....	\$16,462,000	295
1976 .....	19,644,000	242
Transition quarter .....	(3,078,000)	
1977 .....	15,012,000	213
Change from 1976 .....	<u>-4,632,000</u>	<u>-29</u>

A net decrease of \$4,632,000 and 29 permanent full-time positions are proposed as follows:

- (1) An increase of \$343,000 to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).
- (2) A decrease of \$4,975,000 in the contingency fund is proposed, leaving \$5,025,000 in reserve. Prior to fiscal year 1976 there was \$1,910,000 in the contingency fund. These funds are used to provide adequate financing on a timely basis for emergency insect and disease suppression projects. The appropriation is available until expended, and funds not required during fiscal year 1976 will be available in subsequent years. The Department is reviewing the present levels of Federal participation with the States in financing suppression projects. This review may affect the size of the contingency fund needed to meet high priority suppression needs.

The forest pest control program involves protection of the forest from depredation by insects and diseases on lands of all ownerships. Activities include:

- (1) The prevention, detection, evaluation, and suppression of insects and diseases on all Federal forest lands.
- (2) Federal financial assistance to States for a similar program on State and private lands.
- (3) Coordination of the insect and disease program on forest lands of all ownerships.

Forest pests seriously reduce the potential timber resource through direct killing of trees and growth loss on living trees. Much of the killed volume is dispersed throughout the entire forest and becomes unusable before it can be harvested. Intensive management of the timber resources is geared to using the optimum portion of the productive capacity of the forest land. Achievement of optimum timber production is dependent on a strong program for prevention, detection, evaluation, and suppression of all insect and disease pests.

The program for fiscal year 1977 will continue the strong effort to hold losses caused by bark beetles to tolerable levels. It is not possible to predict this far in advance the exact locale or scope of control operations, but present beetle activity indicates a need for:

- (1) Mountain pine beetle control projects in Colorado, Idaho, Montana, Oregon, South Dakota, Wyoming, and Washington.
- (2) Douglas-fir beetle, fir engraver, and western pine beetle control projects in California, Oregon, and Washington.

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1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1975, 15; 1976, 15; 1977, 15.



- (3) Spruce beetle control projects in Alaska, Arizona, Colorado, New Mexico, Oregon, and Washington.
- (4) Southern pine beetle control projects in Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Defoliating insects--particularly the gypsy moth and spruce budworm--will be suppressed where resource values are seriously threatened by them and benefit/cost ratios are favorable. Firm data are not available as yet, but it is expected that projects will be required to suppress:

- (1) Spruce budworm and western spruce budworm in Maine, Minnesota, Montana, Oregon, and Washington.
- (2) Gypsy moth in New Jersey, New York, Pennsylvania, and Rhode Island.
- (3) Jack pine budworm in Michigan and Wisconsin.
- (4) Sawflies in Michigan, Minnesota, and Wisconsin.
- (5) Cankerworms and leaf tiers in New Jersey, New York, Pennsylvania, and Virginia.

Every effort is being made to strengthen procedures for making detection surveys and biological evaluations. The future goal is to cut detection time in half and to obtain more precise figures concerning the status of specific insects and diseases. By decreasing the time during which pests go undetected and better predicting the course they might follow, suppression costs can be lowered and destructive losses to the Nation's timber supply reduced.

Data have been critically needed to determine the forest resource impact caused by insects and diseases for purposes of making meaningful control decisions. During 1975 a Methods Application Group was established to provide the necessary expertise and assistance to field units for collecting this data. Impact data targeted for collection will be biological, environmental, and economic in nature. There will be four major thrusts in this urgent activity:

- (1) Compile and sort existing information and store for retrieval and analysis.
- (2) Develop and improve existing insect and disease detection and biological surveys, using rigorous statistical techniques of gathering, screening, storing, and analyzing data.
- (3) Redesign existing detection, biological, economic, and environmental survey procedures to gather resource impact data.
- (4) Initiate special evaluations to gather impact data on soil, vegetative, and stand structure changes; tree mortality and growth loss; recreation; fire hazard; and watershed.

Complete forest resource impact data on which sound suppression decisions can be based are the best means of determining when and where insect and disease control is necessary to meet forest management objectives. Although difficult to quantify, sound, dependable impact data will improve overall efficiency of insect and disease management strategies and should lead to reduced costs on a unit basis over the long-run.

Costs have greatly increased since the implementation of the National Environmental Policy Act of 1969. Not only have additional monies been required to prepare and review environmental statements, but restrictions on pesticides have seriously affected the capability to deal with major outbreaks of forest insects and diseases.



Several pesticide registrations have been cancelled leaving no effective method for reducing destructive losses occurring to the Nation's timber supply. When less persistent chemicals have been available as substitutes, a larger effort has been required to monitor outbreaks for proper timing of application. Much of the effort is devoted to screening and testing of alternate chemicals and other means of managing pest populations.

An evaluation of current policies and control strategies in dwarf mistletoe suppression projects continues. An analysis of the current input from all Forest Service regions indicates the need for more standardized control criteria. These criteria will be drafted in calendar year 1976. Funding will be discontinued until an acceptable control strategy has been developed.

An evaluation of the current oak wilt program indicated only partial success through the control effort. Funding of this project will be discontinued until more effective control methodology can be developed.

White pine blister rust control will be continued primarily as part of the Department of the Interior's program. Some small projects on State and private lands will be undertaken by the Forest Service. Careful evaluation of rust conditions and hazard has reduced the area requiring control materially in recent years.

Insect and disease outbreaks fluctuate greatly. Hence, the cost of containing and suppressing outbreaks cannot be accurately predicted. Using past experience as a guide, along with the knowledge of developing situations, Federal funds (all operation and maintenance) needed for fiscal year 1977, as compared with previous periods, are as follows:

	<u>1975</u>	<u>1976</u>	<u>Transition quarter</u> (in thousands)	<u>1977</u>	<u>Change from 1976</u>
Technical assistance, training impact, detection and evaluation .....	\$7,713	\$8,164	\$2,144	\$8,867	+\$703
Methods improvement .....	226	145	37	145	- -
Bark beetle control .....	3,154	663	897	300	-363
Defoliator control .....	4,845	342	- -	345	+3
Other insect control .....	134	130	- -	130	- -
Blister rust control .....	264	150	- -	150	- -
Oak wilt control .....	52	- - 1/	- -	- -	- -
Dwarf mistletoe control ....	24	- - 1/	- -	- -	- -
Other disease control .....	50	50	- -	50	- -
Contingency .....	- -	10,000	- -	5,025	-4,975
Total .....	16,462	19,644	3,078	15,012	-4,632

1/ These funds have been transferred to technical assistance, training impact, detection and evaluation to further emphasize field programs.

Insect and disease control scientists serve to protect the environment by carefully evaluating and weighing the adverse effects of unchecked insect and disease outbreaks against the benefits which might result from prescribed suppression treatments. As part of their overall responsibilities, forest insect and disease management personnel attempt to keep all environmental impacts, both beneficial and adverse, in proper perspective and recommend only those courses of action that will provide the greatest benefits to the American people.





### Examples of Recent Accomplishments

Cooperation with States. In fiscal year 1975, 41 States participated in the Cooperative Forest Pest Action Program. It is expected that 2 to 3 additional States will join the program in fiscal year 1976. Fiscal year 1975 suppression project cost-sharing with the States led to approximately 7.3 million Federal dollars moving directly and 3.2 million Federal dollars moving indirectly into the cooperative State forest insect and disease management programs.

Bark beetles. Suppression of various bark beetle outbreaks involved treatment of numerous individual spot infestations in the South and West. The massive Southern pine beetle epidemic now underway is being vigorously attacked on many fronts. Although direct chemical treatment was necessary in some places, greater advantage was taken to utilize the removal of infested trees through commercial sale as a means of removing beetle infested trees from the woods before the insects were able to emerge and kill additional trees. Last year approximately 273.5 million board feet and 64.4 thousand cubic feet of beetle infested timber was salvaged from forests in the South.

Spruce budworm and Western spruce budworm. Some 5.3 million acres of spruce-fir type in Maine were infested by spruce budworm in 1975. Zectran, fenitrothion, and Sevin-4-oil were used in a cooperative suppression effort with the State of Maine to treat some 2.2 million acres where high damage was imminent, if the infestation was allowed to go unchecked. Foliage protection was achieved in the treatment area, but unfortunately an additional 1.3 million acres requiring suppression could not be treated, because of a shortage in registered pesticides.

The current outlook is that spruce budworm and Western spruce budworm outbreaks are extremely high, nationwide. In Eastern North America, some 124 million acres are still infested, 7 million acres of which are located in Maine. Outbreaks are underway in the Western United States on approximately 5 million acres. A four million acre suppression project is being considered in Maine during fiscal year 1976. A suppression operation is also being planned for destructive Western spruce budworm populations occurring on approximately 300,000 acres in Washington.

Cooperative gypsy moth suppression. Some 48,579 acres were cooperatively treated in New Jersey, New York, Pennsylvania, and Rhode Island. Treatments were successful in protecting the current year's foliage. Significance of any long-term benefits must await further evaluation. No new defoliation was reported in Delaware, Maryland, Virginia, or West Virginia. Outbreaks in the Northeast States continued to decline in 1975. A total of 464,451 acres were defoliated to some degree in 1975 compared to 1,773,846 acres in 1973.

Air pollution. The impact of air pollutants on forest resources continues to increase in importance annually. Current impact studies show that substantial mortality and growth loss has occurred to forest vegetation. In addition, injury to wildlife populations has resulted in areas subject to fluoride emissions. Pollutants identified as damaging agents to all forest resources include fluorides, sulfur dioxide, and ozone. Studies are continuing to better define the total of pollutants on all forest resources.

Progeny testing for fusiform rust resistance. The progeny testing program for determining the susceptibility of slash and loblolly pine seed lots to fusiform rust is fully operational now. Approximately 800 seed lots have been screened against several isolates of the rust fungus from various geographic locations in the South. Nursery producers' interest in the program continues to grow as evidence indicates the losses from this disease will be drastically reduced. It is anticipated that within 2-3 years the present facility will be capable of testing 1,500 seed lots annually. Additional procedures are currently being developed for brown spot needle blight on longleaf pine, white pine blister rust, and other disease problems.



## GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL--in thousands

	1975	1976 estimate	Transition quarter estimate	1977 estimate	Change from 1976
Alabama .....	\$557	\$388	\$70	\$350	-\$38
Alaska .....	176	209	50	218	+9
Arizona .....	280	242	63	150	-92
Arkansas .....	194	152	41	58	-94
California .....	980	1,041	249	1,041	- -
Colorado .....	830	583	200	480	-103
Connecticut .....	1	21	6	48	+27
Delaware .....	1	6	2	10	+4
District of Columbia	350	387	100	400	+13
Florida .....	144	150	71	52	-98
Georgia .....	275	475	50	400	-75
Hawaii .....	15	15	7	15	- -
Idaho .....	757	741	200	541	-200
Illinois .....	11	8	2	8	- -
Indiana .....	19	50	11	8	-42
Iowa .....	9	32	7	7	-25
Kansas .....	8	6	2	6	- -
Kentucky .....	139	141	34	50	-91
Louisiana .....	187	210	50	210	- -
Maine .....	4,475	650	56	150	-500
Maryland .....	10	41	10	50	+9
Massachusetts ...	2	21	6	27	+6
Michigan .....	63	165	33	120	-45
Minnesota .....	118	186	42	120	-66
Mississippi .....	238	158	50	150	-8
Missouri .....	56	103	33	90	-13
Montana .....	791	821	152	650	-171
Nebraska .....	11	8	2	8	- -
Nevada .....	15	31	10	40	+9
New Hampshire ...	29	104	33	105	+1
New Jersey .....	125	219	53	190	-29
New Mexico .....	96	279	83	318	+39
New York .....	130	174	40	110	-64
North Carolina ..	350	324	98	250	-74
Ohio .....	23	64	20	67	+3
Oklahoma .....	109	120	30	10	-110
Oregon .....	866	601	152	601	- -
Pennsylvania ....	257	328	105	110	-218
Rhode Island ....	-28	136	10	40	-96
South Carolina ..	217	147	91	147	- -
South Dakota ....	664	450	100	183	-267
Tennessee .....	175	207	52	150	-57
Texas .....	531	250	75	250	- -
Utah .....	70	142	21	90	-52
Vermont .....	36	78	30	85	+7
Virginia .....	647	978	289	980	+2
Washington .....	465	538	69	284	-254
West Virginia ...	170	191	50	200	+9
Wisconsin .....	102	210	43	150	-60
Wyoming .....	176	202	25	210	+8
Total program					
level .....	15,922	12,783	3,078	9,987	-2,796
Contingency .....	- -	10,000	- -	5,025	-4,975
Unobligated balance					
brought forward	-2,599	-3,139	- -	- -	+3,139
Unobligated balance					
carried forward	3,139	- -	- -	- -	- -
Total appro-					
priation .....	16,462	19,644	3,078	15,012	-4,632



COOPERATIVE LAW ENFORCEMENT

		Permanent full-time positions
1975 .....	\$1,632,000	47
1976 .....	3,931,000	51
Transition quarter .....	(1,060,000)	
1977 .....	5,306,000	56
Change from 1976 .....	<u>+1,375,000</u>	<u>+5</u>

An increase of \$1,375,000 is proposed as follows:

- (1) To provide increased assistance to State and local law enforcement agencies in the enforcement of State and local laws on National Forest System lands, \$1,314,000.
- (2) To provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$61,000.

An increase of 5 permanent full-time positions is proposed.

Fiscal year 1977 funds, compared with other periods, follow:

	<u>FY 1975</u>	<u>FY 1976 estimate</u>	<u>Transition quarter estimate</u>	<u>FY 1977 estimate</u>	<u>Change from 1976</u>
Program level .....	\$3,608	\$4,750	\$1,060	\$5,306	+\$556
Unobligated balance brought forward .....	-2,795	-819	- -	- -	+819
Unobligated balance carried forward .....	<u>819</u>	<u>- -</u>	<u>- -</u>	<u>- -</u>	<u>- -</u>
Appropriation (budget authority) .....	1,632	3,931	1,060	5,306	+1,375

The President, in his special crime message to the Congress on June 19, 1975, emphasized that the responsibility in combating crime lies with State and local officials, and that the Federal Government can, and should, provide assistance to these State and local officials in their efforts. Forest Service law enforcement policy places primary emphasis on cooperative relationships, under PL 92-82, with State and local law enforcement agencies.

Public Law 92-82 (August 10, 1971) authorized the Secretary of Agriculture to cooperate with any State or political subdivision thereof in the enforcement of State or local laws on lands of the National Forest System. Such cooperation includes reimbursement to a State or its subdivision for expenditures incurred in connection with activities on National Forest System lands.

State and local laws and ordinances are applicable on National Forest System lands with few exceptions. The Forest Service must look to State and local law enforcement officials to enforce these laws and ordinances on the National Forests. State and local law enforcement agencies will continue to perform, on a nonreimbursable basis, their normal law enforcement duties without cost to the Federal Government. This program provides for the negotiation of law enforcement agreements between the local law enforcement agencies and the Forest Service to handle abnormal impacts caused by public use of the National Forest.

The increase requested will be utilized to increase Forest Service participation under existing agreements and to increase the number of agreements.



During fiscal year 1976 there are approximately 420 agreements in operation. It is expected that this number will increase to 465 in fiscal year 1977. 741 counties in 43 States are eligible to participate in this program.

## GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL

	<u>FY 1975</u>	<u>FY 1976</u> <u>estimate</u>	<u>Transition</u> <u>quarter</u> <u>estimate</u> (in thousands)	<u>FY 1977</u> <u>estimate</u>	<u>Change from</u> <u>1976</u>
Alabama .....	\$32,015	\$26,000	\$3,709	\$40,000	+\$14,000
Alaska .....	46,816	197,000	29,800	175,000	-22,000
Arizona .....	278,978	259,000	68,158	315,000	+56,000
Arkansas .....	49,747	64,000	8,737	100,000	+36,000
California .....	699,893	862,141	222,043	837,000	-25,141
Colorado .....	29,136	66,000	23,948	71,000	+5,000
District of Columbia	53,579	45,000	9,000	192,000	+147,000
Florida .....	65,475	66,000	9,067	104,000	+38,000
Georgia .....	26,278	37,000	4,999	55,000	+18,000
Idaho .....	221,726	324,000	56,590	308,000	-16,000
Illinois .....	27,869	32,000	6,392	40,000	+8,000
Indiana .....	13,860	18,000	2,876	25,000	+7,000
Kentucky .....	45,190	25,000	3,423	40,000	+15,000
Louisiana .....	26,946	23,000	3,174	35,000	+12,000
Maine .....	4,304	10,000	1,199	15,000	+5,000
Michigan .....	57,727	65,000	24,110	85,000	+20,000
Minnesota .....	53,155	62,000	28,986	80,000	+18,000
Mississippi .....	21,487	33,000	4,479	50,000	+17,000
Missouri .....	77,596	78,000	18,774	90,000	+12,000
Montana .....	242,629	309,000	38,400	310,000	+1,000
Nebraska .....	163	- -	130	- -	- -
Nevada .....	41,284	75,000	12,669	70,000	-5,000
New Hampshire .....	61,904	55,000	6,794	70,000	+15,000
New Mexico .....	178,265	234,000	61,342	283,000	+49,000
New York .....	2,661	5,000	1,146	6,000	+1,000
North Carolina ....	28,611	63,000	8,686	95,000	+32,000
Ohio .....	16,941	22,000	3,516	30,000	+8,000
Oklahoma .....	1,855	4,000	579	5,000	+1,000
Oregon .....	319,072	448,000	113,045	425,000	-23,000
Pennsylvania .....	40,834	42,000	13,318	55,000	+13,000
Puerto Rico .....	16,489	23,000	3,167	35,000	+12,000
South Carolina ....	11,573	23,000	3,174	35,000	+12,000
South Dakota .....	27,860	63,000	22,910	70,000	+7,000
Tennessee .....	19,167	50,000	6,993	75,000	+25,000
Texas .....	22,345	23,000	3,174	35,000	+12,000
Utah .....	258,802	341,000	66,095	315,000	-26,000
Vermont .....	47,841	45,000	10,310	60,000	+15,000
Virginia .....	37,064	65,000	8,957	100,000	+35,000
Washington .....	305,871	428,000	108,101	405,000	-23,000
West Virginia .....	16,970	30,000	5,774	40,000	+10,000
Wisconsin .....	21,044	37,000	11,587	50,000	+13,000
Wyoming .....	56,520	73,000	20,669	80,000	+7,000
Total .....	<u>3,607,542</u>	<u>4,750,141</u>	<u>1,060,000</u>	<u>5,306,000</u>	<u>+555,859</u>





## FOREST PROTECTION AND UTILIZATION

### Proposed Changes in Language

Changes in language are proposed as follows. New language is underscored and deleted matter is enclosed in brackets.

For necessary expenses of the Forest Service ..... fighting and preventing  
1 forest fires on or threatening such lands and [emergency rehabilitation and]  
for liquidation of obligations incurred in the preceding fiscal year for  
2 such purposes, control of [white pine blister rust and other] forest diseases  
1 ..... of which \$4,275,000 for fighting and preventing forest fires [and for  
the emergency rehabilitation of burned-over lands under its jurisdiction]  
and apportioned for use ..... Provided further, That funds appropriated for  
3 the cooperative law enforcement program, \$ \_\_\_\_\_, and insect and  
3 disease control, \$ \_\_\_\_\_, shall remain available until expended.

Change 1 eliminates the advance authorization for emergency fire rehabilitation work. We are developing cost/benefits and criteria for emergency rehabilitation efforts and propose to eliminate this language pending the completion of the work.

Change 2 eliminates superfluous words.

Change 3 adds dollar amounts for cooperative law and insect and disease control. This addition will resolve any questions Treasury or anyone else may have as to the portion of the appropriation that should be a continuing fund.



FOREST PROTECTION AND UTILIZATION  
FOREST LAND MANAGEMENT

Proposed Change in Activity Structure

Present Structure	:	Proposed Structure
	:	
<u>National forest protection and management:</u>	:	<u>National forest protection and management:</u>
(6) Minerals management	:	(6) Minerals area management
(10) <u>Forest insect and disease control</u>	:	(10) <u>Forest insect and disease manage-</u>
	:	<u>ment</u>

Minor changes are proposed for more descriptive and appropriate titles.



## DEPARTMENT OF AGRICULTURE

A-11-34b

Type also:  
17n Md/24

**STANDARD FORM 304-T** FOREST SERVICE  
 FOREST PROTECTION AND UTILIZATION  
 June 1976, Office of Management and Budget  
 Circular No. A-11, Revised,  
 304-103T  
 Forest Land Management

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	19 75 actual	19 76 estimate	19 TQ estimate	19 77 estimate
05-96-1100-0-1-302				
FOREST SERVICE--Direct Obligations:				
Personnel compensation:				
11.1 Permanent positions.....	134,669	144,090	47,760	147,836
11.3 Positions other than permanent.....	71,148	51,100	19,508	52,767
11.5 Other personnel compensation.....	26,026	4,282	2,158	4,210
11.8 Special personal services payments.....	4,035	200	175	200
Total personnel compensation.....	235,878	199,672	69,601	205,013
Personnel benefits:				
12.1 Civilian.....	26,275	26,005	7,208	26,659
12.0 Benefits for former personnel.....	34	18	10	.....
21.0 Travel and transportation of persons.....	14,990	14,610	3,855	12,270
22.0 Transportation of things.....	15,297	15,150	4,890	13,035
23.0 Rent, communications, and utilities.....	24,984	11,585	4,145	20,280
24.0 Printing and reproduction.....	2,341	2,255	385	1,780
25.0 Other services.....	71,781	67,286	19,399	70,803
26.0 Supplies and materials.....	25,990	20,560	5,155	21,740
31.0 Equipment.....	7,948	6,845	810	6,110
32.0 Lands and structures.....	4,088	4,150	720	3,505
33.0 Investments and loans.....				
41.0 Grants, subsidies, and contributions.....	2,232	2,985	1,097	8,760
42.0 Insurance claims and indemnities.....	134	5	5	5
43.0 Interest and dividends.....				
44.0 Refunds.....	1	.....	.....	.....
Subtotal, direct obligations	431,973	371,126	117,280	389,960
99.0 Quarters and subsistence charges.....	-1,753	-1,840	-630	-1,855
direct				
99.0 Total obligations.....	430,220	369,286	116,650	388,105
				70

(Mono cast: 22.13)

(Mono cast: 5.9)

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(Mono cast: 5.9)

(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-34b

**STANDARD FORM 304-T FOREST PROTECTION AND UTILIZATION**

June 1975, Office of Management and Budget  
Circular No. A-11, Revised,  
304-103T

Forest Land Management

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	19 75 actual	19 76 estimate	19 TQ estimate	19 77 estimate
05-96-1100-0-1-302				
FOREST SERVICE--Reimbursable obligations:				
Personnel compensation:				
11.1 Permanent positions.....	1,432	1,605	625	1,615
11.3 Positions other than permanent.....	668	895	376	905
11.5 Other personnel compensation.....	621	516	424	516
11.8 Special personal services payments.....	443	360	215	360
Total personnel compensation.....	3,164	3,376	1,640	3,396
Personnel benefits:				
12.1 Civilian.....	217	255	107	255
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	228	255	97	255
22.0 Transportation of things.....	155	128	64	128
23.0 Rent, communications, and utilities.....	247	305	55	305
24.0 Printing and reproduction.....	24	250	25	250
25.0 Other services.....	3,247	3,396	1,361	3,376
26.0 Supplies and materials.....	1,235	1,305	590	1,305
31.0 Equipment.....	156	38	10	38
32.0 Lands and structures.....	1	1	.....	1
<del>33.0 Investments and loans.....</del>				
<del>41.0 Grants, subsidies, and contributions.....</del>				
42.0 Insurance claims and indemnities.....	1	.....	.....	.....
<del>43.0 Interest and dividends.....</del>				
44.0 Refunds.....	1	1	1	1
Subtotal, reimbursable obligations.....	8,676	9,310	3,950	9,310
95.0 Quarters and subsistence charges.....	-6	-10	.....	-10
reimbursable				
99.0 Total obligations.....	8,670	9,300	3,950	9,300
Total obligations, Forest Service .....	438,890	378,586	120,600	397,405

(Mono cast: 22.13)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5)





## FOREST SERVICE

**STANDARD FORM 304-T** FOREST PROTECTION AND UTILIZATION  
 June 1976, Office of Management and Budget  
 Circular No. A-11, Revised.  
 304-103T

## Forest Land Management

## OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	19 77 estimate	19 77 estimate
05-96-1100-0-1-302				
ALLOCATION ACCOUNTS				
Personnel compensation:				
11.1 Permanent positions.....	303	347	95	365
11.3 Positions other than permanent.....	352	360	87	362
<del>11.5 Other personnel compensation.....</del>				
11.8 Special personal services payments.....	6	1	.....	.....
Total personnel compensation.....	661	708	182	727
Personnel benefits:				
12.1 Civilian.....	57	59	16	62
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	152	140	37	150
22.0 Transportation of things.....	39	40	12	40
23.0 Rent, communications, and utilities.....	4	5	1	4
<del>24.0 Printing and reproduction.....</del>				
25.0 Other services.....	209	184	74	153
26.0 Supplies and materials.....	53	50	15	50
31.0 Equipment.....	46	30	13	30
<del>32.0 Lands and structures.....</del>				
<del>33.0 Investments and loans.....</del>				
<del>41.0 Grants, subsidies, and contributions.....</del>				
Total obligations, Allocation Accounts .....	1,221	1,216	350	1,216
99.0 Total obligations .....	440,111	379,802	120,950	398,621
Obligations are distributed as follows:				
Department of Agriculture:				
Forest Service .....	438,890	378,586	120,600	397,405
Department of the Interior ..	1,221	1,216	350	1,216
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



## DEPARTMENT OF AGRICULTURE

A-11-34b

## FOREST SERVICE

## FOREST PROTECTION AND UTILIZATION

## Forest Land Management

## Personnel Summary

STANDARD FORM 300-T  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-1100-0-1-302				
FOREST SERVICE				
Direct:				
Total number of permanent positions .....	10,452	10,543		10,689
Full-time equivalent of other positions .....	8,705	5,832		5,892
Average paid employment .....	17,537	14,931		15,105
Average GS grade .....	8.63	8.64		8.64
Average GS salary .....	\$15,149	\$15,947		\$15,947
Average salary of ungraded positions .....	\$12,261	\$13,008		\$13,008
Reimbursable:				
Total number of permanent positions .....	94	101		101
Full-time equivalent of other positions .....	78	103		103
Average paid employment .....	159	193		193
Average GS grade .....	8.63	8.64		8.64
Average GS salary .....	\$15,149	\$15,947		\$15,947
Average salary of ungraded positions .....	\$12,261	\$13,008		\$13,008
ALLOCATION ACCOUNTS				
Total number of permanent positions .....	29	29		29
Full-time equivalent of other positions .....	41	41		41
Average paid employment .....	67	67		67
Average GS grade .....	8.99	9.00		9.00
Average GS salary .....	\$15,043	\$15,059		\$15,059
Average salary of ungraded positions .....	\$4,867	\$4,867		\$4,867
(Mono cast: 22.12)	(Mono cast: 5.6)	(Mono cast: 6.9)	(Mono cast: 5.9)	(Mono cast: 6)







FOREST PROTECTION AND UTILIZATION  
FOREST RESEARCH

		<u>Permanent full-time positions</u>
Appropriation, 1975 .....	\$77,612,000	2,654
Appropriation, 1976 .....	80,355,000	2,739
Appropriation, transition quarter .....	(21,737,000)	
Estimate, 1977 .....	84,691,000	2,750
Change from 1976 .....	<u>+4,336,000</u>	<u>+11</u>

SUMMARY OF INCREASES AND DECREASES  
(On basis of adjusted appropriation--dollars in thousands)

	<u>Increase or Decrease (-)</u>				<u>Total Permanent Full-time Positions</u>
<u>Pay Costs</u>	<u>Program</u>	<u>Permanent Full-time Positions</u>	<u>Total 1977 Estimate</u>		
<u>Renewable resources evaluation--Increase of</u>					
<u>\$1,445,000 will be used to</u>					
<u>strengthen renewable</u>					
<u>resource evaluation, par-</u>					
<u>ticularly in non-timber</u>					
<u>alternatives, to improve</u>					
<u>data base and assessment</u>					
<u>for 1979, .....</u>					
\$249	\$1,445	11	\$7,153		198
<u>Trees and timber management</u>					
<u>research .....</u>					
547	- -	- -	15,252		637
<u>Forest watershed management</u>					
<u>research .....</u>					
280	- -	- -	7,802		292
<u>Wildlife, range, and fish</u>					
<u>habitat research .....</u>					
207	- -	- -	5,770		176
<u>Forest recreation research</u>					
54	- -	- -	1,518		39
<u>Surface environment and</u>					
<u>mining .....</u>					
94	- -	- -	2,628		17
<u>Fire and atmospheric sciences</u>					
<u>research .....</u>					
251	- -	- -	8,456		235
<u>Forest insects and disease</u>					
<u>research .....</u>					
569	- -	- -	19,142		520
<u>Forest products utilization</u>					
<u>research .....</u>					
440	- -	- -	11,395		439
<u>Forest engineering research</u>					
61	- -	- -	1,581		56
<u>Forest economics and marketing</u>					
<u>research .....</u>					
139	- -	- -	3,994		141
<u>Total, Forest Research ..</u>					
2,891	1,445	11	84,691		2,750





FOREST PROTECTION AND UTILIZATION  
FOREST RESEARCH

PROJECT STATEMENT  
(On obligation basis)

Project	1975	1976 estimate	Transition quarter estimate	1977 estimate	Change from 1976
<b>FOREST RESEARCH:</b>					
Forest and range management research:					
(12) Trees and timber management research .....	\$15,043,242:	\$14,705,000:	\$4,214,000:	\$15,252,000:	+\$547,000
(13) Forest watershed management research .....	8,655,516:	7,522,000:	2,630,000:	7,802,000:	+280,000
(14) Wildlife, range, and fish habitat research .....	4,935,971:	5,563,000:	899,000:	5,770,000:	+207,000
(15) Forest recreation research .....	1,468,852:	1,464,000:	516,000:	1,518,000:	+54,000
(16) Surface environment and mining .....	2,205,297:	2,534,000:	1,726,000:	2,628,000:	+94,000
Subtotal, Forest and range management research .....	32,308,878:	31,788,000:	9,985,000:	32,970,000:	+1,182,000
Forest protection research:					
(17) Fire and atmospheric sciences research .....	8,051,619:	8,205,000:	1,648,000:	8,456,000:	+251,000
(18) Forest insects and disease research .....	17,320,461:	18,573,000:	4,234,000:	19,142,000:	+569,000
Subtotal, Forest protection research .....	25,372,080:	26,778,000:	5,882,000:	27,598,000:	+820,000
Forest products and engineering research:					
(19) Forest products utilization research .....	9,892,092:	10,955,000:	2,812,000:	11,395,000:	+440,000
(20) Forest engineering research .....	1,630,024:	1,520,000:	349,000:	1,581,000:	+61,000
Subtotal, Forest products and engineering research .....	11,522,116:	12,475,000:	3,161,000:	12,976,000:	+501,000
Forest resource economics research:					
(21) Renewable resources evaluation .....	4,128,453:	5,459,000:	1,706,000:	7,153,000:	+1,694,000
(22) Forest economics and marketing research .....	3,881,548:	3,855,000:	1,003,000:	3,994,000:	+139,000
Subtotal, Forest resource economics research .....	8,010,001:	9,314,000:	2,709,000:	11,147,000:	+1,833,000
Total obligations or estimate .....	77,213,075:	80,355,000:	21,737,000:	84,691,000:	+4,336,000
Unobligated balance lapsing .....	398,925:	-	-	-	-
Appropriation or estimate .....	77,612,000:	80,355,000:	21,737,000:	84,691,000:	+4,336,000



## GEOGRAPHIC BREAKDOWN OF APPROPRIATION

Forest Research					
State	Headquarters or Project Location	FY 1976 estimate	Transition	FY 1977 estimate	Increase over 1976
			quarter estimate		
(in thousands)					
Alabama	Auburn .....	\$301	\$82	\$313	+\$12
Alaska	Fairbanks .....	635	172	652	+17
	Juneau .....	957	259	1,045	+88
Arizona	Flagstaff .....	816	220	849	+33
	Tempe .....	1,037	281	1,077	+40
	Tucson .....	292	79	304	+12
Arkansas	Fayetteville .....	235	64	245	+10
California	Arcata .....	270	73	281	+11
	Berkeley .....	3,288	890	3,434	+146
	Fresno .....	455	123	475	+20
	Redding .....	220	60	230	+10
	Riverside .....	2,814	762	2,901	+87
Colorado	Fort Collins .....	2,998	812	3,214	+216
Connecticut	Hamden .....	950	257	995	+45
District of Columbia	Washington .....	759	206	762	+3
Florida	Gainesville .....	351	95	353	+2
	Lehigh Acres .....	149	40	156	+7
	Marianna .....	244	66	254	+10
	Olustee .....	741	200	772	+31
Georgia	Athens .....	1,906	516	1,996	+90
	Macon .....	1,398	379	1,444	+46
Hawaii	Honolulu .....	848	230	875	+27
Idaho	Boise .....	447	121	464	+17
	Moscow .....	1,152	312	1,203	+51
Illinois	Carbondale .....	871	236	909	+38
Kentucky	Berea .....	893	242	930	+37
Louisiana	Pineville .....	3,485	944	3,592	+107
	New Orleans .....	1,142	309	1,440	+298
Maine	Orono .....	687	186	705	+18
Maryland	Beltsville .....	265	72	277	+12
	Hyattsville .....	1,200	325	1,200	- -
Massachusetts	Amherst .....	336	91	350	+14
Michigan	East Lansing .....	821	222	850	+29
	Houghton .....	432	117	450	+18
	Marquette .....	288	78	301	+13



## GEOGRAPHIC BREAKDOWN OF APPROPRIATION

## Forest Research -- continued

State	Headquarters or Project Location	FY 1976 estimate	Trantition	FY 1977 estimate	Increase over 1976
			quarter estimate		
(in thousands)					
Minnesota	Duluth .....	\$336	\$91	\$349	+\$13
	Grand Rapids .....	436	118	454	+18
	St. Paul .....	1,629	441	1,978	+349
Mississippi	Gulfport .....	1,679	454	1,758	+79
	Oxford .....	359	97	373	+14
	State College .....	400	108	416	+16
	Stoneville .....	863	234	903	+40
Missouri	Columbia .....	324	88	338	+14
Montana	Bozeman .....	322	87	335	+13
	Missoula .....	3,352	908	3,466	+114
	Billings .....	2,065	559	2,139	+74
Nebraska	Lincoln .....	247	67	259	+12
Nevada	Reno .....	126	34	131	+5
New Hampshire	Durham .....	1,153	312	1,194	+41
New Jersey	Pennington .....	339	92	352	+13
New Mexico	Albuquerque .....	199	54	207	+8
New York	Syracuse .....	116	31	121	+5
North Carolina	Asheville .....	1,005	272	1,303	+298
	Franklin .....	413	112	425	+12
	Research Triangle (Raleigh-Durham)	803	217	841	+38
North Dakota	Bottineau .....	267	72	280	+13
Ohio	Delaware (including Columbus) ..	1,828	495	1,913	+85
Oregon	Bend .....	378	102	394	+16
	Corvallis .....	2,678	725	2,801	+123
	LaGrande .....	779	211	798	+19
	Portland .....	3,176	860	3,445	+269
Pennsylvania	Upper Darby .....	762	206	938	+176
	Warren .....	457	124	477	+20
Puerto Rico	Rio Piedras .....	316	86	330	+14
South Carolina	Charleston .....	449	122	462	+13
	Clemson .....	323	87	337	+14
South Dakota	Rapid City .....	350	95	365	+15
Tennessee	Sewanee .....	236	64	246	+10
Texas	Nacogdoches .....	349	95	364	+15



## GEOGRAPHIC BREAKDOWN OF APPROPRIATION

## Forest Research -- continued

<u>State</u>	<u>Headquarters or Project Location</u>	<u>FY 1976 estimate</u>	<u>Transition quarter estimate</u>	<u>FY 1977 estimate</u>	<u>Increase over 1976</u>
				(in thousands)	
Utah	Logan .....	\$530	\$144	\$551	+\$21
	Ogden .....	677	183	790	+113
	Provo .....	601	163	623	+22
Vermont	Burlington .....	576	156	599	+23
Washington	Olympia .....	324	88	339	+15
	Seattle .....	577	156	600	+23
	Wenatchee .....	350	95	364	+14
West Virginia	Morgantown .....	386	105	402	+16
	Parsons .....	391	106	407	+16
	Princeton .....	1,308	354	1,355	+47
Wisconsin	LaCrosse .....	39	11	40	+1
	Madison .....	8,811	2,386	9,188	+377
	Rhineland .....	1,026	278	1,071	+45
Wyoming	Laramie .....	259	70	269	+10
Total .....		78,052	21,136	82,388	+4,336
Allocations to other agencies:					
	Agricultural Research Service .....	436	110	436	- -
	Animal and Plant Health Inspection Service ..	683	171	683	- -
	Cooperative State Research Service .....	1,184	320	1,184	- -
Totals .....		80,355	21,737	84,691	+4,336





TREES AND TIMBER MANAGEMENT RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$14,535,000	635
1976 .....	14,705,000	637
Transition quarter .....	(4,214,000)	
1977 .....	15,252,000	637
Change from 1976 .....	<u>+547,000</u>	<u>- -</u>

An increase of \$547,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

Timber management research develops scientific knowledge of forest ecosystems with trees as a principal component and develops methods for culture of trees and management of forests for production of timber and for modification and improvement of man's environment. This includes:

- (1) Development of cultural methods for timber and timber-related crops.
- (2) Techniques of timber measurement.
- (3) Techniques of forest management planning.
- (4) Techniques for environmental tree culture.
- (5) Research in forest genetics.

The core of this research is determining the proper culture for over a hundred different commercial timber species based on a thorough knowledge of their ecology and growth requirements. This research determines how the Nation's needs for timber and other forest benefits can be met on Federal, State, and private lands through measures such as brush control, forest establishment, protection from animals, stand culture, soil and site improvement, and reestablishment of tree species valuable for timber or environmental purposes.

Research is being accelerated on intensive culture of important timber types to help meet the Nation's growing needs for domestic forest products.

Timber management research also provides forest managers with reliable information on growth and yield of forests and on the influence of cultural practices on yield and quality of the stand.

This program includes research on methods of producing timber-related forest crops such as gum naval stores, maple sap, Christmas trees, and other income-producing natural products from forests.

Forest genetics research includes scientific study of variation and inheritance in trees and development of techniques for producing strains or hybrids which are superior in growth rate, wood quality, resistance to insects, diseases, and other damaging factors, or special value for use in environmental improvement.

Examples of Recent Accomplishments

Intensive culture more than doubles loblolly pine sawtimber production in southeastern Arkansas. To meet increasing demand in the South for lumber and veneer logs, production of short-rotation sawlogs is necessary. In southeastern



Arkansas, using experimental intensive culture methods such as heavy thinning, understory control, and pruning, loblolly pine sawtimber was produced in 27 years on good sites. At age 27, standing volume was 11.9 thousand board feet per acre in intensive treatments compared to 5.3 thousand board feet per acre in control stands.

Management of lodgepole pine ecosystems. Lodgepole pine is one of the most widely distributed trees in western North America; however, silvicultural knowledge about the species has not been readily available. An international symposium on lodgepole pine ecosystems resulted in a 2-volume compendium of over 1,100 references on lodgepole pine. This was followed by a detailed state-of-the-knowledge summary bulletin on silviculture and management of lodgepole pine in the central and southern Rocky Mountain region. Information is provided on recommended regeneration techniques, stocking guidelines, and thinning and cutting practices. These important publications provide land managers and researchers in the western United States with up-to-date information and readily available guidelines to better manage lodgepole pine ecosystems.

New management guides now available for ponderosa pine in the western United States. Ponderosa pine is one of the most important tree species in the western forest region. New state-of-knowledge bulletins summarize silvical characteristics, behavior, and recommended silvicultural practices for ponderosa pine in the Black Hills of South Dakota and in the southwestern States of Arizona, Colorado, New Mexico, and Utah. Modifications of conventional approaches to thinning, cutting systems, plus flexible standards for growing stock levels are also available for ponderosa pine stands of central Colorado. These bulletins will be valuable to professional foresters and resource managers in making multiple use management decisions and prescribing silvicultural prescriptions for improving ponderosa pine yields and related forest resources.

Computer program developed to improve management decisions in old-growth spruce-fir stands. Large areas of old-growth spruce-fir forests in the central Rocky Mountains are being converted to stands that must be managed from regeneration to harvesting. To assist in making management decisions in this region a new computer program was developed which produces yield tables for managed even-aged Engelmann spruce--subalpine fir stands based on combinations of site quality, frequency and intensity of thinning, regeneration system, rotation length, and utilization standards. With the new computer program, a manager can assess probable results of his proposed operations from a set of yield tables and make necessary changes in management goals before operations are carried out in actual forest stands.

Thinning guidelines available for Appalachian yellow-poplar. The majority of unthinned natural yellow-poplar stands in the southern Appalachians are overstocked for maximum board foot and diameter growth. Thus, knowing the response of yellow poplar to thinning is basic to achieving many objectives of forest management in this region. Equations which describe growth and yield in response to thinning were developed using data from 141 natural yellow-poplar stands in the Appalachian Mountains of Virginia, North Carolina, and Georgia. Maximum board foot and diameter growth were obtained at considerably lower densities than needed to produce maximum cubic-foot volume. These guidelines aid resource managers in making decisions on treatment of natural stands of yellow poplar.

Results of fertilization and thinning studies in Pacific Northwest Douglas-fir stands. In the Pacific Northwest where availability of old-growth Douglas-fir stands is rapidly declining, the responses of second-growth Douglas-fir to various silvicultural practices is critical to maintaining the timber supply. In a 30-year-old Site IV stand of Douglas-fir in southwest Oregon, fertilization increased 4-year basal area growth 57 percent over control growth. Thinning increased growth by 53 percent. When combined, the treatments increased growth 94 percent on a clay loam soil and 132 percent on a sandy loam soil. In similar tests with 75-year-old Douglas-fir in western Washington, nitrogen fertilization increased average 5-year basal area growth 17 to 53 percent over the controls. The increased



The growth from fertilized and thinned Douglas-fir stands provides high value wood which can help maintain an adequate supply of merchantable Douglas-fir in the Pacific Northwest.

New handbook on identification of tropical forest tree species. The numerous native and introduced tropical forest tree species of Puerto Rico and the Virgin Islands require special, detailed studies for their identification. A new illustrated reference contains descriptions and drawings of 460 species, briefly describes 40 other species, and provides keys to all 500 species. Common names, including those from other countries, are given and indexed. This reference is useful over large areas in tropical America as well as along the southern border of the continental United States.

Inventory of rare and endangered conifers completed. Thirty-five of the 96 species of conifers (cone-bearing evergreens) native to the continental United States are now considered to be rare and/or locally distributed. The locations of rare or endangered tree species have been mapped. This compilation provides essential information for the study, protection, and preservation of rare conifer species.

Management practices increase productivity of pine hardwood stands. There is an extensive area of depleted pine hardwood forests in the Cumberland Plateau of northern Alabama in need of rehabilitation. Nineteen years after improvement cuttings were made, stand volume increased 778 cubic feet per acre on an area where all merchantable low-value trees were removed in a commercial cut, and 1,498 cubic feet on an area where the commercial cut was supplemented by repeated removal of cull and undesirable trees larger than 2 inches diameter breast height. Unmanaged stands grew 237 cubic feet. These findings demonstrated that managing depleted pine hardwood stands will increase yields, income, and forest land values.

Better growth estimates available for longleaf pine. Little is known about growth rates of longleaf pine plantations under varying intensities of management. Research, in an east Texas plantation where site index averaged 83 feet at 50 years, has resulted in equations which predict growth rates of individual trees and stands. This information will enable landowners to select residual densities for longleaf pine plantations that best fit their management goals.

Thinnings from immature fine hardwood stands are usable. Under present utilization standards, many of the Nation's fine hardwoods, such as black walnut and yellow poplar, have little or no value if they are smaller than sawlog size, thus, resulting in considerable waste when immature stands of these species are thinned. In two studies in southern Illinois, small diameter black walnut and yellow poplar trees removed during thinning operations were successfully converted into furniture dimension material. Use of thinning residue to help supply the furniture manufacturers needs would increase the supply of all lumber grades and help conserve the rapidly dwindling supply of high-quality hardwoods.

New vegetative propagation techniques aid in tree improvement. Vegetative propagation greatly simplifies the task of mass producing genetically uniform planting material. A new vegetative propagation method developed in Mississippi allows tree improvement specialists to increase material with desirable traits. The method involves environmental and chemical treatments. The rooting success of cuttings from pines up to 13 years old ranged between 83 and 100 percent. In Georgia similar techniques have been found successful in rooting cuttings from selected trees representing ten genera of important Southern hardwoods. These treatments have wide application in tree improvement programs.





FOREST WATERSHED MANAGEMENT RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$8,527,000	296
1976 .....	7,522,000	292
Transition quarter .....	(2,630,000)	
1977 .....	7,802,000	292
Change from 1976 .....	<u>+280,000</u>	<u>--</u>

An increase of \$280,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

Watershed management research is conducted to:

- (1) Develop methods and techniques for managing forest-related watersheds to protect and improve soil and water quality, improve the yield and timing of water flows, and restore and rehabilitate degraded landscapes.
- (2) Develop adequate means of protecting soil and water resources, especially on fragile or unstable soils, while forest and forest-related lands are being managed for other products and services.
- (3) Provide basic knowledge of vegetation, soil, water, and atmospheric relationships in wildland and related forest areas.

Examples of Recent Accomplishments

Trees for human comfort in urban areas. Urban microclimates are characterized by local extremes of temperature, solar and terrestrial radiation, and wind speed. Strategic location of tree stands in urban areas can ameliorate these severe conditions. Use of trees for control of air flow requires care because in the summer increased wind speed is desired, but in the winter, trees can greatly increase human comfort by reducing wind speed. City planners and urban foresters can use information from Forest Service studies in New Jersey to provide a more desirable microclimate in cities.

Refuse banks from underground bituminous mines can be reclaimed. Chemical characteristics of the refuse appear to be responsible for limiting plant growth. Greenhouse studies show that lime and fertilizer ameliorate the conditions enough to allow germination and growth of grasses on over half the spoil samples. Lime, fertilizer and hardwood bark mulch were essential on most of the areas to establish herbaceous cover. Tree survival did not appear to be greatly influenced by the amendments. A vegetative cover on these spoils enhances their esthetic qualities and reduces dust and water pollution.

Fly ash from power plants can be used for surface mine reclamation. Surface mine spoils are frequently difficult to revegetate because of nutrient deficiencies, unfavorable moisture regimes, acidity, and excessive salts or toxic substances. Fly ash from power plants can be used for reclamation of surface mine spoils and provide an attractive outlet for large tonnages of this waste material. A Forest Service study in West Virginia shows that a fly ash treatment neutralized acidity, added plant-available phosphorous, lowered spoil density, and increased subsurface moisture.





Sewage effluents and sludges from municipal and industrial sources can provide water and nutrients for forest crops. Intensive silviculture requires adequate nutrients and water for accelerated tree growth. Successful recycling of sewage nutrients on land requires crops with high nutrient and water demands. Forest Service studies show that in Michigan intensive-culture forestry offers the only wildland management alternative that gives adequate uptake to provide long-term renovation of wastewater. In Illinois studies show sludge is a useful amendment for enhancing vegetation on spoil banks. The nutrient value of sewage effluent and sludge is the key to their usefulness in silviculture.

Endrin coated seed produces only a short-term water quality problem. Endrin has been extensively used in the Pacific Northwest for the past 15 years to protect directly sown Douglas-fir seed from seed-eating rodents. Following aerial seeding of two western Oregon watersheds with treated Douglas-fir seed, detectable residues of endrin were found in a steep gradient stream for less than 5 hours and in a slower flowing stream for 11 days. In both cases, maximum concentrations were well below 96-hour median tolerance limits for important fish species. Stream contamination can be minimized or eliminated by leaving buffer strips and avoiding application to open water and streambanks.

Conversion of hardwood forests to pine may substantially change amount of stream-flow. Fifteen years ago two experimental watersheds in the southern Appalachians were converted from a mature deciduous hardwood cover to white pine. Annual streamflow was reduced about 20 percent below that expected for hardwood cover. These results have important implications for the management of municipal watersheds. On municipal watersheds in the East, white pine has long been a favorite species for planting, but this practice will reduce water supplies.

Difficult, eroded planting sites in Mississippi detected by statistical analysis. Establishment of loblolly pine is one of the surest ways to stabilize eroding sites in the South. Most areas are successfully planted, but a few defy repeated revegetation efforts. Statistical analysis of the chemical and physical characteristics of the soil were used to detect hard-to-plant areas. Results of the tests showed that high bulk density of the soils substantially contributed to pine mortality either through physical impedance of root growth or poor aeration or by interference with proper planting.



WILDLIFE, RANGE, AND FISH HABITAT RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$5,224,000	160
1976 .....	5,563,000	176
Transition quarter .....	(899,000)	
1977 .....	5,770,000	176
Change from 1976 .....	<u>+207,000</u>	<u>--</u>

An increase of \$207,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

Land management decisions must be made with full knowledge of the probable impact upon habitat productivity. Where competitive uses exist and where habitat values are low, more effective management systems are essential for rapid improvement in the years ahead.

Wildlife, range, and fish habitat research is conducted to maintain and increase the diversity and productivity of fish and wildlife, as well as domestic livestock populations by:

- (1) Defining the habitat requirements of the many species of fish, wildlife, and livestock.
- (2) Assessing the impact of alternative land use practices upon habitat values.
- (3) Generating strategies to optimize the habitat values of forests and ranges.

Examples of Recent Accomplishments

Livestock production on native ranges in Southeast can be increased. High energy costs associated with production of feed grain and improved pastures are focusing attention to production of livestock on native range. Managers must recognize the limited quality of native forage species and use some supplemental feeds to boost the overall nutritional level in order to have a profitable livestock operation on southeastern ranges. There are 20.5 million acres of longleaf slash pine wiregrass ranges in the Southeast dominated by low quality shrubs and grasses. Research results show that when grazing of native range is combined with improved forages, survival of calves increases 35-45 percent and weaning weights double. Range improvement through shrub control, fertilization, or plant conversion will greatly increase stocking capacity without excessive energy requirements.

Possible cause found for decline in population of the endangered timber wolf. The Forest Service, cooperating with the Fish and Wildlife Service, universities, and State Natural Resource Departments, has been studying populations of the endangered timber wolf in northern Minnesota. During research conducted to learn what factors affect juvenile wolf survival in natural wolf populations, growth rates ranging from 0.05 to 0.23 kilograms per day were observed. Similar variation occurred in development of canine teeth. Pups with relative weights less than 65 percent of standard have a poor chance of survival, whereas pups of at least 80 percent of



standard have a high survivability. Pups born in 1972, which were especially underweight, may be the result of a declining population of white-tailed deer in the study area.

Short-term survival of nestling mountain bluebirds or house wrens not affected by DDT. DDT was sprayed on Oregon forests at the rate of 0.75 pounds per acre to control the Douglas-fir tussock moth. Researchers evaluated the short-term effects of DDT on survival of nestling songbirds, and found no detrimental short-term effects on mountain bluebirds or house wrens. Nest boxes were placed in a spray and nonspray area to attract mountain bluebirds and house wrens. The number of eggs laid and hatched and survival of nestlings were compared to determine the impacts of DDT. These results provide managers with some quantitative data on short-term impacts of DDT on songbirds, but results should be not extrapolated to other species of insectivorous birds or to other habitat types.

Toxicity of herbicides to Salmonids determined. The herbicides 2, 4-D, and 2, 4, 5-T, are used to control brush in Oregon and Alaska. Toxic contaminants from the herbicides may enter forest streams during spray operations. Researchers at Corvallis, Oregon, have determined levels of toxicity for several species of salmon and other aquatic organisms. This information helps resource managers predict the impacts of herbicides on aquatic organisms.

Urban wildlife management information summarized. Wildlife in the urban realm is an important indicator of quality environment. Researchers in Massachusetts assisted in a symposium (Wildlife in an Urbanizing Environment) and publication of the proceedings. This state-of-the-art publication contains 34 separate papers covering philosophical aspects; problems with people-wildlife interactions; habitat requirements for urban wildlife; and the role of the Federal and State governments in urban wildlife. The proceedings represent the first effort at summarizing the state-of-knowledge about urban wildlife and is, therefore, useful for planning and management of wildlife in urban environments.

Production of forage for livestock and deer improved in lodgepole pine forest by logging and slash disposal. Bitterbrush is an important livestock and wildlife food in central Oregon. However, little is known about the impact of logging and slash disposal on bitterbrush. On an experimental forest site, logging destroyed 72 percent of the bitterbrush crown area. Disposal of slash was the primary cause of soil disturbance and reduction in shrub cover. Forage production recovered in 5 years after logging and continued to increase for 12-15 years. Production of forage for livestock, deer and elk improved for 15 years. These results were used in development of guidelines for coordinated management of timber and wildlife habitat.



FOREST RECREATION RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$1,251,000	44
1976 .....	1,464,000	39
Transition quarter .....	(516,000)	
1977 .....	1,518,000	39
Change from 1976 .....	<u>+54,000</u>	<u>-</u>

An increase of \$54,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

Growing public demands for forest-based recreation opportunities has generated new needs for both public and private developments, new forest management requirements, new conflicts among users and resource managers, and new threats to both the quality of recreational experiences and the health of the natural resource base. Conflicts and environmental impacts faced by today's resource managers were quite rare only a few years ago.

Forest recreation research is being conducted to:

- (1) Develop new and better resource management practices which enhance amenity values.
- (2) Understand man's need for, and use of, forests, open space, and parks as environments for living, working, and recreation.
- (3) Analyze and understand the interactions between people and forests, social and economic factors underlying outdoor leisure activities, esthetic quality of forest landscapes and environmental situations, trends in recreation uses, use and management of wilderness areas, and alternative management strategies for meeting the public demands.
- (4) Identify interrelations among recreation, environmental amenities, and other uses of forests and open spaces--and find better ways of coordinating these uses.

The program includes research on planning and management of forest-based recreation opportunities, landscape scenery, preservation and use of wilderness resources, and the interactions between man and his forest environment.

Examples of Recent Accomplishments

Landscape assessment symposium provides vital information for regional planners. In thinking of the landscape as a scenic resource, public awareness has expanded greatly in the last 15 years to include a new assessment of the everyday, non-spectacular landscapes in which most Americans spend the major portion of their lives. This awareness--and the resultant legislation on Federal, State, and local levels--has put forth a challenge to planners, designers, and scientists to ensure that "intangible" or "amenity" values enter into the landscape decision-making process. A recent symposium, sponsored by the Forest Service's Pinchot Institute, provides a comprehensive overview of current research in landscape perception and a close look at the development of landscape assessment methods. Practitioners and researchers in the areas of landscape planning, landscape management, and resource planning will find the book Landscape Assessment, which resulted from the symposium, a useful summary and guide.





Long-range planning assisted. To grow--indeed to survive--a technology-oriented society must anticipate changes that will detrimentally affect its basic life support systems of air, water, soil, flora, and fauna. Forecasts of 125 future events relating to the Nation's natural environment were projected by a panel of 900 experts. Events were grouped into five categories--natural resources management; wildland recreation management; environmental pollution; population-workforce-leisure; and urban environments. These perspectives on the future provide a basis for dealing more effectively with future environmental problems.

Knowing preferences of fishermen leads to improved service to the public. Management needs to know what aspects of a fishing experience increase the satisfaction of participants. A personal interview survey of 100 licensed fishermen indicated that water quality, scenic beauty, and privacy were consistently rated as most important to a fishing experience. Number of fish caught, weather, and convenience or accessibility to trout were of moderate importance. Type of water body was unimportant. The results provide managers with suggestions on how to manipulate the environment to increase the enjoyments of fishing.

National market research aids commercial campground enterprises. Developers of commercial outdoor recreation enterprises and public park planners need factual information on trends in recreation participation. Analysis of 8 years of data on camping participation (reported by a nationwide panel of 459 camping families) revealed that: 51 percent of campers were either camping less or had dropped out of the camping market; campers changing their rate of participation were more likely to have experienced a change in their style of camping; and changes in camping style were either toward a more primitive type or toward season-long rentals and advance reservations at commercial campgrounds. Both trends in volume and style provide important clues for planning future facilities.

Recreation workshop translates research findings to management principles. There is a need for recreation researchers to work closely with land managers in order to relate research findings to management needs. A workshop at Marquette, Michigan, promoted this interaction. The proceedings contain 15 papers on subjects ranging from social and esthetic considerations in recreation management, through economic problems, to questions of design and development of sites. These state-of-the-art papers provide summaries of new technology and information for recreation management programs.

Guidelines for improving scenic quality. Guidelines have been needed for reducing the impacts of timber harvest residue on recreational and esthetic values. Relevant information has been developed for timber management activities to enhance scenic beauty and, through interpretative activities, to help forest visitors understand what they see. Management can apply these principles to improve satisfaction of recreation visitors in environments disturbed by logging slash.

Wilderness research provides the scientific foundation for management. To evaluate the use of fire as a technique for managing vegetation in the interior-zone of the Boundary Waters Canoe Area in Minnesota, the historical role of fire in the ecosystem needs to be understood. Research indicates that fire largely determined the composition and age structure of the area's forests; influenced nutrient cycles; and maintained the diversity, productivity, and long-term stability of the area's ecosystem. The results of this research suggest that the use of fire is an ecologically viable approach to maintaining the natural ecosystem of this wilderness area.

Research on principles of communications used to improve education and interpretation programs. Communication skills are not always effectively utilized by resource managers when they attempt to interpret ecological information for the public. Research has shown that to have maximum viewer interest, the interpretation must be dynamic, rewarding to visitors, easily obtained, tailored to diverse visitors, and meaningfully structured. Adoption of these principles will improve the effectiveness of interpretation by attracting more visitors and holding their attention longer.



SURFACE ENVIRONMENT AND MINING  
(All operation and maintenance)

Permanent  
full-time  
positions

1975 .....	\$2,264,000	16
1976 .....	2,534,000	17
Transition quarter .....	(1,726,000)	
1977 .....	2,628,000	17
Change from 1976 .....	<u>+94,000</u>	<u>- -</u>

An increase of \$94,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

SEAM is a research, development and applications program designed to provide an innovative array of economical and effective surface mine reclamation alternatives which satisfy environmental, energy, and mineral needs. The direct end product of SEAM will be several demonstration areas where new techniques in planning of mining operations, new methods of rehabilitation, and environmental stewardship criteria can be evaluated and displayed.

SEAM is an on-the-ground problem-solving effort. SEAM is a partnership undertaking with land managers, the mining industry, and political jurisdictions. It is closely coordinated with ongoing Federal and State programs.

The development and application funds for SEAM in fiscal year 1977 will be used to continue work on five basic objectives:

- (1) Determine and evaluate the effects of mining and related activities on forest and rangelands.
- (2) Determine and evaluate the effects of mining and related developments on forest users and associated communities.
- (3) Develop alternative methods to minimize adverse impacts of mining on the forest and range environment and on forest users and associated communities.
- (4) Test, evaluate, analyze, and demonstrate alternative reclamation and planning methods.
- (5) Develop recommendations and disseminate findings.

Examples of Recent Accomplishments

Northern Great Plains mining lands classified for rehabilitation. The rehabilitation potential of lands likely to be surface mined in the Northern Great Plains ranges from fair to excellent if proper constraints are applied. Guidelines have been developed for predicting the potential rehabilitation of surface-mined land for this area. The guidelines are based on: (1) amount and distribution of precipitation, (2) suitability and availability of plant materials, and (3) soil productivity and stability. The potential for rehabilitation is greatest in such areas as west-central North Dakota, and lowest in southeastern Montana and western North Dakota.



Handbook "Anatomy of a Mine from Prospect to Production." A looseleaf handbook has been developed that provides information and instructions concerning mining law, prospecting, exploration, mine development, production, and reclamation. The document is designed to be expanded and updated and is intended to bring about a better understanding between land managers, planners, environmentalists, and the mining industry.

Design and construction criteria developed for phosphate mine spoil dumps. For phosphate mines located in the steep terrain of southeastern Idaho, it is environmentally important to design spoil dumps that will not have massive structural failures or produce serious surface erosion. Investigations have revealed that dumps should not be subject to failure, even under saturated conditions, if placed on slopes of 3-to-1 or less. Erosion channels are caused where runoff concentrations approach 0.8 cubic feet per second. Runoff concentrations sufficient to cause erosion channels can be prevented by vegetation and/or mulch.

Handbook of Federal and Utah State laws on energy and mineral resource development. Energy and mineral resource development is often slowed because of the need to work simultaneously with government agencies operating under different laws and regulations. To solve this problem this handbook provides: (1) an overview of Federal agencies whose primary concern is resource management; (2) a summary of energy regulatory functions of pertinent Federal agencies; (3) relevant Federal laws pertaining to environmental matters; and (4) a summary of laws related to energy developments.

Energy research information available. A system has been implemented by the Old West Regional Commission and SEAM to collect and disseminate information on energy research that is under way in Montana, Wyoming, Nebraska, and the Dakotas. The system provides a quarterly report on active research projects for use by researchers, funding agencies, and decisionmakers at the State, local, and Federal levels.





FIRE AND ATMOSPHERIC SCIENCES RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$8,213,000	235
1976 .....	<u>8,205,000</u>	<u>235</u>
Transition quarter .....	(1,648,000)	
1977 .....	8,456,000	235
Change from 1976 .....	<u>+251,000</u>	<u>--</u>

An increase of \$251,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

The fire research program develops knowledge and technology to reduce forest fire costs and to protect the quality and productivity of American forests. This research is designed to aid all private, State, and Federal agencies in protecting 1.2 billion acres of forest and watershed lands. Although research has aided in bringing about a major percentage reduction in total forest fire losses, increasing use of forest lands makes the forest fire control job more difficult than ever before.

Opportunities to make substantial savings through development of new technology for fire prevention and control are clearly evident. Timber losses now average 1.5 million acres of commercial forest land burned per year. Environmental quality degradation results from fires on some five million acres on all classes of lands each year. The current fire research program is focused on:

- (1) Fire prevention.
- (2) Fire hazard reduction.
- (3) Fire control systems.
- (4) Prescribed burning smoke management.

Examples of Recent Accomplishments

Fire effects in interior Alaska summarized. Until quite recently, forest fires burned more than a million acres of interior Alaskan forests every year. As fire control became more effective and the acreage burned reduced, there have been several unforeseen consequences. In permafrost areas firelines have caused more erosion and watershed damage than does the fire itself. Plant species changed markedly with a resulting shift in game habitat and the borders between tundra and forest have shifted. Consequently, for the past few years there has been much uncertainty over how intensive fire control efforts should be in interior Alaska, and what kinds of sites should be protected from fire. These decisions can be made more intelligently as a result of a new publication, "Wildfire in the Taiga of Alaska." Compiled by scientists at the Forest Service Institute of Northern Forestry, the booklet covers what is known about fire effects on vegetation, wildlife, soils, and hydrology in the harsh but fragile environment of the far north.

Progress in forest fire smoke management. The effects of forest fire smoke on air quality--especially from prescribed burning operations--must be minimized. A simple method for prediction of smoke concentrations at locations downwind from a fire has been developed by Forest Service scientists in Georgia. This method will be helpful to the land manager for predicting where smoke from his prescribed burning will go and how dense it will be. With this prediction capability and





recently developed aids for measuring fuel concentrations in the slash pine type, the quantity of particulates produced by a fire may be estimated by the manager before the fire is started, allowing him to use prescribed fire without violating air quality standards.

Forest residue management guidelines available for Pacific Northwest. Public awareness of environmental issues has made all forest land managers--both public and private--take a hard look at forest residues management objectives. A new publication not only aids land managers but also provides needed information to regulatory agencies such as Environmental Protection Agency and State environmental departments. These practical guidelines summarize, step by step, decisions that affect the creation and treatment of forest residues. The guidelines represent current state-of-the-art in residue management supported by research findings and extensive practical experience--the results of scientists and practitioner interacting in technical panels. This publication is primarily directed to Pacific Northwest situations, but many concepts have wider applications.

Air tanker management made easy. Personnel at the Northern Forest Fire Laboratory in Montana have cooperated with the Honeywell Corporation to prepare operation manuals for the four most popular firefighting aircraft. Each model of air tanker lays down a different pattern of fire retardant, depending on the intensity of the fire, the height and speed of the aircraft, and the type of fire retardant. It has been difficult for fire managers to coordinate air operations for optimum effectiveness when several different aircraft were working the same fire. The new operation manuals show rapidly and graphically the optimum height, speed, and drop delay time needed to achieve the greatest length of retardant fire line for each type of fire and each type of retardant. Manuals for the B-17, SF-2, DC6B and Canadair CL-215 were used successfully during the past fire season. The series of manuals will be expanded to include all aircraft commonly used in forest fire control.

Togetherness on the firelines. An Incident Command System has been designed to significantly improve the capabilities of individual firefighting agencies to efficiently manage resources on large fires, or in other emergencies, has been completed by the FIREScope Program. Encompassing terminology, emergency organization, and operating procedures, the system, which is being adopted by major southern California fire agencies, will make it possible for them to work more effectively together, particularly on major wildland fires involving large numbers of personnel from many different jurisdictions. Initial use of the system occurred on the 7,200-acre Pacojma fire, Angeles National Forest, which was controlled through the joint efforts of the Forest Service, California Division of Forestry, and Los Angeles County Fire Department.

How the wind blows--by computer. A numerical model capable of describing winds in mountainous terrain is now in operation. It has been used to identify air pollution potential, to provide wind maps in areas of fire danger and for impact assessment. Mass and energy conservation principles applied to forest fuels have led to predictions of moisture content. Application of these principles to living fuels and air pollution effects are underway.



FOREST INSECTS AND DISEASE RESEARCH  
(All operation and maintenance)

		<u>1/ Permanent full-time positions</u>
1975 .....	\$17,883,000	480
1976 .....	18,573,000	520
Transition quarter .....	(4,234,000)	
1977 .....	19,142,000	520
Change from 1976 .....	<u>+569,000</u>	<u>- -</u>

An increase of \$569,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

The mission of forest insects and disease research is to provide the knowledge and technology to:

- (1) Define, measure, and evaluate the impacts of destructive insects and diseases on forest resources, and on wood in storage and use.
- (2) Detect, assess, and predict changes in the occurrence of these pests.
- (3) Reduce their numbers and impacts to tolerable levels by means of control techniques and management strategies that are ecologically sound, economically practical, and environmentally acceptable.

Current research is strongly oriented toward developing comprehensive integrated pest management systems for major forest insects and diseases.

Special emphasis is being given to:

- (1) Continuing work on the special forest insect program started in 1975. Intensive research and development will lead to control of three of the most important forest pests--the Douglas-fir tussock moth, Southern pine beetle, and the gypsy moth.
- (2) Understanding and quantifying the full impacts on forest resources of pests such as the gypsy moth, Southern pine beetle, Douglas-fir tussock moth, mountain pine beetle, spruce budworms, dwarf mistletoes and fusiform rust.
- (3) Finding and developing specific microbial and other biological agents for control of the gypsy moth, Douglas-fir tussock moth, root rots and similar major pests.
- (4) Finding and developing safer chemicals for suppressing or manipulating pest populations. These materials include systemic fungicides; insect attractants, repellents, deterrents, and other behavioral chemicals; as well as more selective, nonpersistent toxicants.
- (5) Developing specialized equipment and improved techniques for efficient and safe application of pesticidal materials to individual trees and to forested areas.
- (6) Developing technology to detect, monitor, evaluate, and reduce adverse environmental effects of air pollutants in forest and related ecosystems.

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1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1975, 3; 1976, 13; 1977, 13.



## Examples of Recent Accomplishments

Attack on gypsy moth, tussock moth, and Southern pine beetle progresses. In both rural and urban environments severe damage continues from major forest pests. The combined resources of four USDA agencies, numerous universities, several States and industry, in a cooperative research and development program are beginning to provide new technology for insect control. A few of the more significant research findings this year follow:

### Gypsy Moth

New insecticide protects foliage from gypsy moth. A new insect growth regulator, Dimilin (®), was pilot-tested in Pennsylvania for gypsy moth control. At 0.06 pounds active ingredient per acre, foliage protection was excellent and insect mortality high. Final results will be determined by egg mass counts in the treated area.

Nucleopolyhedrosis virus (NPV) reduces gypsy moth populations. The natural virus of gypsy moth was field-tested against low, medium, and heavy gypsy moth populations in Pennsylvania. Significant population reduction and good foliage protection was obtained, verifying previous trials. These tests were significant in that two commercially available compounds were included as carriers. The eventual formulation to be registered will have to include a carrier to retard breakdown of the virus due to weathering--primarily degradation by ultra violet light.

### Douglas-Fir Tussock Moth

New insecticides suppress Douglas-fir tussock moth. Two new chemical insecticides, Dimilin (®) and Orthene (®), and a naturally occurring virus of the tussock moth were field-tested in British Columbia in cooperation with the Canadian Forest Service. All three materials were highly effective in reducing moth populations. This brings to six the insecticides which are strong candidates for registration as substitutes for DDT.

Sex attractant of Douglas-fir tussock moth highly effective. The synthesized sex pheromone of the insect was field-tested. It readily attracted male tussock moths. When deployed in inexpensive traps, this material provides a means for early detection and warning of moth outbreaks.

### Southern Pine Beetle

Laboratory studies find candidate chemicals for control of Southern pine beetle. Safe and effective chemical toxicants are urgently needed to replace chlorinated hydrocarbons in Southern pine beetle control. Topical and feeding studies in the laboratory have identified five new candidate chemicals. These will be further tested and evaluated for safety and efficiency in the forests.

Chemicals which affect the behavior of Southern pine beetle are identified. Behavioral chemicals (attractants and inhibitors) offer potential alternatives to toxic chemicals in controlling Southern pine beetle. Several of these compounds from the beetle and the host tree have been identified and are effective in regulating beetle behavior. Strategies for using these behavioral chemicals are being developed and tested in the laboratory and field.

Improved control method available for Scleroderris canker. Scleroderris canker causes serious losses in young red and jack pine plantations and nurseries in the Northern United States. Recent developments suggest older trees also may be susceptible to heavy mortality from this disease. In a continuing series of tests to provide fully satisfactory controls the fungicide, chlorothalonil, has been shown to be more effective in controlling infection than the previously recommended materials.



Control developed for a foliage disease of pines in the Great Plains. A serious foliage disease caused by *Diplodia pinea* has caused severe damage in Great Plains pine plantations that are 30 or more years of age. This disease now can be controlled with as few as one or two sprays with Bordeaux mixture if properly timed to coincide with foliage development. Arborists following a carefully timed spray schedule have obtained good control of *Diplodia* blight.

Controls effective against pales weevil. The pales weevil is the most serious insect pest of coniferous reproduction in eastern North America. Together with the pitch-eating weevil, it can cost the owner of new plantations \$20 more per acre; not uncommonly, 40 percent of newly planted seedlings may be killed. Recent experiments have resulted in the registration of carbofuran and chlorpyrifos, both of which give excellent protection of newly planted pine seedlings. Additionally, the need for insecticide treatment can be sharply reduced by appropriate timing of cutting and planting so that adult weevils, attracted by fresh cuttings, will disperse before new seedlings are planted. Together, the use of these techniques will significantly enhance the development of the Third Forest in the South.

Pheromones show promise in survey and control of three Western forest pests. The European pine shoot moth produces a sex attractant, and the Douglas-fir beetle and Western pine beetle produce chemicals that either encourage the beetles to aggregate or inhibit aggregation behavior. These chemicals, called pheromones, have been identified and successfully tested in the field. Pheromones are promising tools for insect detection and survey and have potential for use in control techniques.

Simple field test developed for evaluating tree vigor. Knowledge of tree vigor is important in judging resistance of trees to disease and insect attack or predicting the ability of trees to tolerate stresses from defoliation, drought, or air pollution. Previous attempts to evaluate the relative vigor of trees often have been unsuccessful. Two techniques have been developed. One technique evaluates the relative vigor of trees by measuring root starch content. High starch content in the roots indicates a vigorous tree. With the second technique general tree vigor and stress from defoliation or other causes can be determined by measuring the resistance to pulsed electric current. Use of these techniques will permit evaluation of tree condition much more readily than in the past.

Guidelines developed for identifying air pollution damage on pine. Air pollution damage to ponderosa and sugar pines is significant in California, but guidelines for distinguishing this type of injury from other common foliage problems have been lacking. Changes in needles of ponderosa pine caused by ozone and sulfur dioxide singly and in combination were distinguished microscopically and contrasted with other injuries. The ability to identify air pollution damage in the Western United States will permit development of better management and control recommendations for minimizing this problem.





FOREST PRODUCTS UTILIZATION RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$10,297,000	439
1976 .....	10,955,000	439
Transition quarter .....	(2,812,000)	
1977 .....	11,395,000	439
Change from 1976 .....	<u>+440,000</u>	<u>--</u>

An increase of \$440,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

Within the goals of supplying timber and improving environments, the focus of forest products utilization research is on:

- (1) Producing the knowledge and technology necessary for improved utilization practices.
- (2) Extending the service life of wood in use.
- (3) Utilizing wood and paper wastes.
- (4) Developing technologies to produce or conserve energy in forestry related activities.

Examples of Recent Accomplishments

Newly designed truss-frame house saves wood framing material. The conventional house is overbuilt in many respects and does not utilize our timber resource to its maximum efficiency. New lightweight truss-framed construction is an improved framing system directly applicable to residential or light-frame construction. It consists of a special floor system, trussed rafters, and conventional wall studs all tied together by rigid joints into a unitized frame. Superior performance in both strength and stiffness has been demonstrated by full-scale structural tests. Savings of up to 30 percent in framing material are possible with truss-frame construction.

More wood from Southern forests. The increasing national demand for wood can be satisfied by substantially increasing the utilization of tree species. In the South, the Forest Service has developed equipment which will produce pallet cants from mixed hardwoods previously unused. Residual wood flakes from this equipment can be the basis for a new major industry manufacturing structural exterior flakeboard by a forming and pressing process developed in the Pineville, Louisiana, Laboratory.

Utilization of Western standing dead timber. Standing dead timber throughout the Western softwood timber regions can significantly add to the merchantable timber resource. Cooperative research with the forest products industries has determined the timber quality characteristics, grade volume and value in standing dead Western white pine in Idaho and the true fir in Oregon and Washington. This dead timber was killed by the Douglas-fir tussock moth. The results show that in Western white pine there is lumber yield potential from recently killed trees and debarked snags. Tussock moth-killed true firs, harvested over a 2-year period, lost about 10 percent of the merchantable tree volume and 20 percent of the merchantable tree value.



Improved fire safety of wood products. A greater level of fire safety in wood structures has been made possible through recent research findings.

- (1) A reduction in the rate of flamespread was achieved in dry-formed hardboard by the addition of chemical borate inhibitors.
- (2) Treating wood building materials with sodium dichromate will reduce the amount of smoke generated under certain flaming and non-flaming conditions.
- (3) In order to develop adequate fire safety criteria for building products, a better concept and testing method for "rate of heat release" was needed. Test equipment has been developed to measure this property. The rate of heat release for various wood products and structures has been determined.

Preserving wood without toxic chemicals. The toxic chemicals added to wood in conventional preservative treatments are a source of environmental concern. By chemically modifying wood with nontoxic chemicals such as alkylene oxides, the wood becomes resistant to fungal attack and less likely to swell, shrink or warp when the moisture level changes. These new preservative treatments result in a superior material particularly suitable for applications such as flooring, window units, and tool handles.

New drying process increases paper strength. With present papermaking processes, the lower quality high-yield ground wood pulps, and hardwood pulps often cannot be utilized for paper products where high strength and stiffness are required. Insufficient interfiber bonding results in a low-strength paper. A new drying system substantially increases interfiber bonding in these papers by restraining fiber movements during drying. The resulting paper has greatly improved performance properties that permit it to be used where high strengths are required. The process improves the potential for utilization of hardwoods.

Pulpmill residue has potential value as animal feed. New combinations of wood-processing wastes are valuable as animal feed components. Short fibers in pulpmill waste provide carbohydrate and aspen bark provides the roughage in these experimental feeds. Aspen bark alone, when properly supplemented, is equivalent to medium-quality hay in feeding value. It appears suitable as a major ingredient in maintenance rations and as a roughage replacement in feedlots.

Insulation economy and energy improved. Design methods for determining insulation thickness in houses have resulted in excessive costs and enormous energy wastes. An engineering analysis of heat loss, coupled with total cost effectiveness over the useful life of a home, was used to demonstrate that there is an optimum insulation thickness for any climate. This optimum thickness results in least total cost of insulation and operation for the life of the building and also results in a significant reduction in energy use. Estimated energy savings of more than 1,400 trillion BTU's per year are possible if this method is applied to existing homes with insufficient insulation, and additional savings of some 6,000 trillion BTU's are possible over a 10-year period by improved design of new construction.

Modified paper retains stiffness when wet. One of the most serious limitations on the use of paper as a material is its loss in stiffness properties when it becomes wet. Formaldehyde reacts with paper fibers to produce paper that retains 90 percent of its stiffness under high wetness conditions. This treatment can reduce the fiber requirements for products and can also replace the use of costly petrochemical resins that are presently used to gain wet strength.

Residue yield tables help sawmillers and land managers. Increased timber demands and costs have forced wood-using industries and land managers to look for additional sources of raw material. Sawmill residues (slabs, edgings and trim, bark, and sawdust) once considered waste are now salable products, but accurate methods of estimating the yields of these residues are essential for equitable purchase and sale of timber. The weight scale of the residues of major species of yellow



pine, black oak, and yellow poplar have been developed for use by timber owners, cruisers, and sawmill operators to estimate lumber yield and residue yield in standing timber.

Composite crossties can bolster supplies. Demand for railroad crossties has resulted in a shortage. Two new developments, however, add to the potential supply. In one system, thin boards are treated with preservatives and then laminated to reach crosstie size, providing a more durable tie. In another system, discarded crossties are converted to flakes and made into new, durable particle-composite crossties.



FOREST ENGINEERING RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$1,629,000	48
1976 .....	1,520,000	56
Transition quarter .....	(349,000)	
1977 .....	1,581,000	56
Change from 1976 .....	<u>+61,000</u>	<u>-</u>

An increase of \$61,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

Forest engineering research provides direct support to managers and planners through development of essential new forest management technologies. Timber harvesting, transportation planning, and mechanization of other forest practices have engineering components that require systematic study. Solutions have far-reaching implications affecting many forest management practices.

Forest engineering research has the following objectives:

- (1) Producing the knowledge and least cost technology necessary for more efficient and environmentally sound harvesting and transportation practices and the efficient use of wood as an engineered material.
- (2) Developing engineering criteria for minimizing environmental and socio-economic impacts of mineral development on forest and related lands.
- (3) Developing the engineering systems needed to permit more effective and economical reforestation and silvicultural improvement operations.

Examples of Recent Accomplishments

Whole-tree utilization. The removal of bark from whole-tree chips is the key to complete tree utilization by the pulp and paper industry. The chip bark removal process developed at Houghton, Michigan, has been tested by a large pulp and paper equipment builder. Many pulp mill representatives have endorsed the process. This culminates a 5-year project to develop acceptable systems to utilize the entire tree.

Running skyline economically harvests partial cuts in Pacific Northwest. Increasing environmental and economic constraints on logging have focused attention on the need to develop timber harvesting systems capable of economically operating under any reasonable silvicultural prescription with a minimum impact on the forest environment. To minimize road and landing construction and associated ground disturbance in the Pacific Northwest, long reach running skylines capable of logging partial cuts or clear-cuts on down- or up-hill settings, have been developed. The possible payoffs in terms of road and landing construction costs and protection of other forest values may run into millions of dollars annually.

Computer model helps logging managers. When whole-tree chippers are integrated into a logging system there are many variables, and it is difficult to achieve equipment and manpower balance, minimum cost, and an efficient operation. A model which simulates all phases of a logging operation (SAPLOS--Simulation Applied to Logging Systems) has been developed and is being tested with pulp and paper companies. Logging managers can use SAPLOS to compare production cost, equipment mix, and manpower use before actual logging takes place and thereby select the most efficient logging system.





Skyline logging in Appalachia. The problems associated with logging steep Appalachian slopes are compounded by concern for esthetics and soil disturbance. Tests conducted in West Virginia with a small, modern skyline logging system indicated that soil disturbance would be much less with skylines than with tractor logging. Both clear-cut and selection logging were possible. Wider scale tests are planned over a greater range of conditions.

Mechanized harvesting of gum naval stores. A dwindling labor force is available for harvesting operations of the naval stores industry. A mechanized bark hack for use in harvesting operations was conceptually designed, developed, tested, and evaluated. Results proved that pine trees can be streaked automatically with a mechanical bark hack mounted on a small farm tractor. The automation of one of the dirtiest and most tiring jobs in naval stores harvesting should increase the ease of harvesting and make wood jobs more attractive.



RENEWABLE RESOURCES EVALUATION  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$3,918,000	153
1976 .....	5,459,000	187
Transition quarter .....	(1,706,000)	
1977 .....	7,153,000	198
Change from 1976 .....	<u>+1,694,000</u>	<u>+11</u>

An increase of \$1,694,000 is proposed:

- (1) To strengthen renewable resource evaluation, particularly in non-timber alternatives, to improve data base and assessment for 1979, \$1,445,000.
- (2) To provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$249,000.

An increase of 11 permanent full-time positions is proposed.

Forests and rangelands in the United States vary greatly in productivity, ownership, availability for industrial as well as noncommercial use, and opportunities for management. Accelerating changes in renewable resource conditions result from changing land uses, timber growth, resource harvesting, and losses to destructive agents. Demands on renewable resource lands for a wide range of uses are also increasing. Consequently, up-to-date inventories of forest and rangeland renewable resources are essential to guide programs for production of forest and rangeland resource values.

The Forest and Rangeland Renewable Resources Planning Act calls for a Renewable Resources Assessment that must consider all forest, range and related lands in the United States, estimated to include 1.6 billion acres. The first assessment will be transmitted to Congress in 1976 and will be followed by detailed assessments in 1979, and every 10 years thereafter. The assessment includes, in part:

- (1) An analysis of present and anticipated uses, demand for, and supply of renewable resources, including a consideration of the international resource situation.
- (2) An inventory of present and potential renewable resources, and opportunities for improving their yield of goods and services, with estimates of the investment costs and returns to the Federal Government.

To provide the data and information base needed for the assessment, the Act requires a current, comprehensive survey and analysis of:

- (1) Present and prospective conditions of, and requirements for, renewable resources of forest and range lands of the United States.
- (2) Supplies of these resources.
- (3) Present and potential productivity of the land.
- (4) Other facts necessary and useful in determination of ways and means to balance demands for and supplies of these resources.



Examples of Recent Accomplishments

Eastern pulpwood production analyzed. Pulpwood production in the South, Northeast, and Lake States all increased in 1973 with the Northeast showing the largest gain--29 percent over 1972. In the South and Lake States, 73 percent of production was softwood, but in the Northeast hardwoods accounted for 54 percent. The bulk of the production increase in all regions was hardwood, reflecting changes in pulping chemistry and the relative scarcity of softwoods. Use of plant residues for pulpwood continues to increase, particularly in the South where it rose to 27 percent of production.

Southern veneer log production analyzed. Veneer log production in the Mid-South reached 2.3 million board feet in 1972. Softwood accounted for 93 percent of Mid-South production, up from 13 percent in 1969, reflecting the growth of Southern pine plywood production which started in 1963. The Mid-South produced over 20 percent of the United States softwood plywood in 1972.

Veneer log production analyzed in North Central and Northeastern regions. The North Central region veneer log production in 1972 was 64 million board feet. Production and number of mills in the North Central hardwood veneer industries declined, continuing a trend of many years. In the Northeast, the number of mills declined, but hardwood production increased to 125 million board feet.

Rocky Mountain forest situation summarized. The decade of the '60s saw dramatic changes in use and management of Rocky Mountain forests. A rapid increase in demand for nontimber uses of forest land, growing public awareness of forests' role in man's environment, and active concern for protection of that environment led to restrictions on certain uses of forest land and on the kinds of activities allowed in timber production. Timber manager's primary concern shifted from the relationship of cut and growth to availability of forest land for timber production and the need to operate within budgetary and environmental constraints. Recent research describes the resource, the timber supply outlook, and some of the problems associated with increasing timber output from shrinking acreage available for timber production.

Public informed of forest resource situation. Reports of the forest resource situation in Oregon, Alaska, Georgia, Connecticut, Massachusetts, Rhode Island, Vermont, and New Hampshire were published to provide interested publics with bases for resource management and utilization decisions.

Twenty-one million acres of commercial forest land were reinventoried during fiscal year 1975. Field surveys were conducted in Alaska, Iowa, Kentucky, Louisiana, Maryland, Minnesota, North Carolina, Oregon, Texas, Virginia, and West Virginia. At current rates timberlands of all States are being reinventoried on an average of every 17 years. Because of increasing costs, the annual reinventoried area has declined from 47 million acres in 1973 to 21 million acres in 1975.

Forestry Incentives Program assisted. A procedure for apportioning Federal cost-share funds under the 1974 Forestry Incentives Program for silvicultural practices was developed using data on distribution of forest area, financial returns on investments, and ability of the respective components of forest area to yield financial returns. Using this procedure, the South received 68 percent of 1974 funds, the North 31 percent, and the West 1 percent. Though some problems remain, the system developed meets statutory requirements with a simple procedure. It will be refined and updated as new data become available.

Renewable resources assessed. Resource data were gathered for the 1975 Renewable Resources Assessment under PL 93-378. This compilation revealed a total of 1.6 million acres of forest and range lands in the United States from which such products as outdoor recreation and wilderness, fish and wildlife, range forage, timber, and water are obtained. New research was initiated to develop methods for inventorying all forest and rangeland renewable resources as required by the Forest and Rangeland Renewable Resources Planning Act.



FOREST ECONOMICS AND MARKETING RESEARCH  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$3,871,000	148
1976 .....	3,855,000	141
Transition quarter .....	(1,003,000)	
1977 .....	3,994,000	141
Change from 1976 .....	<u>+139,000</u>	<u>--</u>

An increase of \$139,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

Forest economics and marketing research seeks to improve economic benefits from use of the Nation's forest land for timber and other values, including water, recreation, range, and wildlife. Research is conducted on:

- (1) Uses and demands for wood products and other forest values to provide necessary inputs for assessing future demands on the Nation's forest lands.
- (2) Reducing costs in timber growing, harvesting, processing and product distribution to achieve more efficient use of available timber resources.
- (3) Timber growing and multiple use management policies and practices, including impacts on environmental quality, to provide guidelines for development of forest resources.
- (4) Evaluations of new technology to help guide implementation of a wide range of technical advances.

Collectively, the results of forest economics and marketing research constitute a major source of information for formulating forest management and use policies and practices at the national, State and local levels.

Examples of Recent Accomplishments

The demand and price situation for forest products, 1974-75. In response to a general decline in activity in major markets, consumption of industrial timber products dropped to 12.6 billion cubic feet in 1974--6 percent under the record consumption of 1973. Production showed a somewhat smaller 3 percent decline. Trends in important markets indicate a probable rise in demand for most products in the last half of 1975. The longer term outlook is one of continued growth in demand for most timber products. Competition for available timber and high prices for stumpage and timber products could adversely affect housing and other programs necessary in the rest of the '70s and beyond to meet needs of a growing population and expanding economy.

Effective use of the timber resource in pallet manufacture. Low density wood species have long been considered inferior for production of durable wooden pallets. Recent research shows that species such as aspen make good pallets provided the lumber is properly used and the pallets are adequately designed. Aspen pallets can be stiffer and more rigid than oak pallets of the same basic design. Use of low density species can greatly increase supplies of raw material for pallets.





Biological and economic response under selection silviculture in Appalachian hardwoods. An economic evaluation was conducted of the individual tree-selection system of silviculture based on data obtained from two different quality sites in West Virginia. Over a 12-year period, an analysis of trends in species, composition, growth rates, timber quality, and reproduction characteristics indicated that internal rates of return were similar for the two sites, but the absolute value response was about three times higher on the better site. Of particular importance to the forest manager is the indication that selective cutting practices will change the species composition toward a climax stand favoring shade-tolerant, slower-growing, and lower-valued tree species.

Mechanized thinning system in slash pine plantations. Each year some 200,000 acres of slash pine plantations in the South are reaching the preferred age for a first commercial thinning. Sufficient labor is not available to do the job by current methods. Mechanized row-thinning might be the answer. Productivity of harvester machines in shortwood, long-log, and whole-tree thinning systems was estimated from measurements of machine operating times and tree measurements on row-thinning operations. Output and costs were calculated for specific stand conditions. This investigation can serve as a guide for other studies of this type. It illustrates the data collection procedure, analytical method, and application of results. With movement toward capital-intensive thinning systems, the need for such studies increases because consequences of poor planning and administration become more and more costly.

Wood use in nonresidential construction. Information on the amount of wood products consumed in construction of nonresidential buildings is needed for accurate assessment of current and prospective demand for timber. The volume of lumber and panel products used in different types and structural classes of buildings was measured. Wood use factors were developed. Volumes of different wood products used, by building type and building component, were reported for use by processors, marketers, and others interested in the size and nature of this important market.

Opportunities to reduce timber processing costs in Appalachia. Extreme variation in sizes of loads hauled on Appalachian logging trucks prevents optimization of hauling costs. Measurement of 125 loads from seven cutting sites showed differences of 10,000 pounds and 1,000 board feet per load even for the same truck, driver, and cutting site. Four out of five trucks were loaded below legal weight limits. Hauling costs can be reduced at least \$5.00 per MBF by increasing average load size through use of higher stakes, presorting and proper placement of logs on the load, and double tiering short logs to use more of the available cargo space.

Financial returns on forage seeded in thinned ponderosa pine. Research on the economic feasibility of public forage-seeding investments has led to the development of a tool for estimating the financial return on forage seeded in thinned ponderosa pine stands. This tool is applicable to an array of forage production costs, market-based forage values, and forage production levels and will be useful to public land managers in scheduling forage-seeding investments on both forested and open rangeland.

Markets for bark residues. Enactment of anti-pollution regulations necessitated development of new processes and markets for utilizing bark residues. Bark products have been developed for use in agriculture, industry, and construction. Markets for mulches and soil conditioners have been established in the horticultural trades and garden stores. The 1972 market for horticultural bark products was estimated at \$30-40 million. Research and development efforts in processing, handling and application of bark have provided timber processors with alternative use opportunities in most sections of the country.



A descriptive analysis of Montana's forest resources. Due to the overall importance of the forest resources of Montana, this study included an analysis of employment, income, economics, and amenity values in addition to an analysis of the timber resource. Economic values of the timber resource are important to the State and are critical to many individual communities. However, Montana no longer enjoys a large surplus of timber; there is sharp competition for currently available wood supplies. The importance of the timber resource is countered by a growing State and national interest in preservation, environmental concerns, and resulting conflicts over forest land use. The results of this survey will enable planners to formulate a clearer definition of alternatives for reaching both commodity and noncommodity objectives.



### Proposed Change in Activity Structure

Minor change is proposed for more descriptive and appropriate title.



## DEPARTMENT OF AGRICULTURE

A-11-34b

## FOREST SERVICE

## FOREST PROTECTION AND UTILIZATION

## Forest Research

**STANDARD FORM 304-T**  
 June 1975, Office of Management and Budget  
 Circular No. A-11, Revised  
 304-103T

## OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	19 77 estimate	19 77 estimate
Q5-96-1100-0-1-302				
FOREST SERVICE--Direct obligations:				
Personnel compensation:				
11.1 Permanent positions.....	41,478	45,373	9,813	45,560
11.3 Positions other than permanent.....	3,666	3,402	1,010	3,460
11.5 Other personnel compensation.....	202	183	41	185
<del>11.8 Special personal services payments.....</del>				
Total personnel compensation.....	45,346	48,958	10,864	49,205
Personnel benefits:				
12.1 Civilian.....	4,458	4,845	1,065	4,871
13.0 Benefits for former personnel.....	12	12	.....	.....
21.0 Travel and transportation of persons.....	2,646	2,555	970	2,980
22.0 Transportation of things.....	779	750	285	880
23.0 Rent, communications, and utilities.....	1,835	1,770	675	2,070
24.0 Printing and reproduction.....	751	725	275	845
25.0 Other services.....	11,802	11,402	4,332	13,317
26.0 Supplies and materials.....	3,204	3,095	1,175	3,610
31.0 Equipment.....	2,874	2,775	1,055	3,240
32.0 Lands and structures.....	83	80	30	95
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	1,147	1,100	420	1,290
42.0 Insurance claims and indemnities.....	2	5	.....	5
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
Subtotal, direct obligations	74,939	78,072	21,146	82,408
95.0 Quarters and subsistence charges .....	-17	-20	-10	-20
direct				
99.0 Total obligations.....	74,922	78,052	21,136	82,388
				106
(Mono cast: 22 13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





## DEPARTMENT OF AGRICULTURE

A-11-34b

Type also:

On M6/2

**STANDARD FORM 304-T**  
 FOREST SERVICE  
 FOREST PROTECTION AND UTILIZATION  
 Forest Research

June 1975, Office of Management and Budget  
 Circular No. A-11, Revised.  
 394-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	1975 actual	1976 estimate	1977 estimate	1977 estimate
05-96-1100-0-1-302				
FOREST SERVICE--Reimbursable obligations:				
Personnel compensation:				
11.1 Permanent positions.....	653	565	94	565
11.3 Positions other than permanent.....	114	180	39	180
11.5 Other personnel compensation.....	4	4	1	4
11.8 Special personal services payments.....				
Total personnel compensation.....	771	749	134	749
Personnel benefits:				
12.1 Civilian.....	80	67	12	67
13.0 Benefits for former personnel.....				
21.0 Travel and transportation of persons.....	53	50	30	50
22.0 Transportation of things.....	53	55	35	55
23.0 Rent, communications, and utilities.....	42	45	25	45
24.0 Printing and reproduction.....				
25.0 Other services.....	389	659	409	659
26.0 Supplies and materials.....	91	100	60	100
31.0 Equipment.....	70	75	45	75
32.0 Lands and structures.....				
33.0 Investments and loans.....				
41.0 Grants, subsidies, and contributions.....	31	.....	.....	.....
42.0 Insurance claims and indemnities.....				
43.0 Interest and dividends.....				
44.0 Refunds.....				
reimbursable				
99-0 Total obligations.....	1,580	1,800	750	1,800
Total obligations, Forest Service .....	76,502	79,852	21,886	84,188
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
STANDARD FORM 304-T FOREST PROTECTION AND UTILIZATION

A-11-34b

Type size  
1 in. 10/22

June 1975, Office of Management and Budget  
Circular No. A-11, Revised,  
104-1037

Forest Research

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	10 75 actual	19 76 estimate	19 TQ estimate	19 77 estimate
05-96-1100-0-1-302				
ALLOCATION ACCOUNTS				
Personnel compensation:				
11.1 Permanent positions.....	25	189	47	180
11.3 Positions other than permanent.....	12	65	16	73
11.5 Other personnel compensation.....	1	.....	.....	.....
<del>11.8 Special personal services payments.....</del>				
Total personnel compensation.....	38	254	63	253
Personnel benefits:				
12.1 Civilian.....	3	23	7	23
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	9	35	9	25
22.0 Transportation of things.....	25	23	7	25
23.0 Rent, communications, and utilities.....	31	11	3	11
<del>24.0 Printing and reproduction.....</del>				
25.0 Other services.....	620	612	151	622
26.0 Supplies and materials.....	254	49	13	50
31.0 Equipment.....	59	112	28	110
32.0 Lands and structures.....	11	.....	.....	.....
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	1,241	1,184	320	1,184
Total obligations, allocation accounts .....	2,291	2,303	601	2,303
99.0 Total obligations .....	78,793	82,155	22,487	86,491
Obligations are distributed as follows:				
Department of Agriculture:				
Forest Service .....	76,502	79,852	21,886	84,188
Animal and Plant Health Inspection Service .....	636	683	171	683
Agricultural Research Service .....	414	436	110	436
Cooperative State Research Service .....	1,241	1,184	320	1,184
(Mono cast: 22.18)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



## FOREST SERVICE

## FOREST PROTECTION AND UTILIZATION

## Forest Research

## Personnel Summary

STANDARD FORM 300-T

June 1976, Office of Management and Budget  
Circular No. A-11, Revised.

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-1100-0-1-302				
FOREST SERVICE				
Direct:				
Total number of permanent positions .....	2,654	2,739		2,750
Full-time equivalent of other positions .....	445	415		422
Average paid employment .....	2,882	3,084		3,102
Average GS grade .....	8.63	8.64		8.64
Average GS salary .....	\$15,149	\$15,947		\$15,947
Average salary of ungraded positions .....	\$12,261	\$13,008		\$13,008
Reimbursable:				
Total number of permanent positions .....	41	36		36
Full-time equivalent of other positions .....	13	19		19
Average paid employment .....	51	54		54
Average GS grade .....	8.63	8.64		8.64
Average GS salary .....	\$15,149	\$15,947		\$15,947
Average salary of ungraded positions .....	\$12,261	\$13,008		\$13,008
ALLOCATION ACCOUNTS				
Total number of permanent positions .....	3	13		13
Full-time equivalent of other positions .....	1	7		7
Average paid employment .....	3	18		18
Average GS grade .....	8.99	9.00		9.00
Average GS salary .....	\$15,043	\$15,059		\$15,059
Average salary of ungraded positions .....	\$4,867	\$4,867		\$4,867
(Mono cast: 22.12)	(Mono cast: 6.9)	(Mono cast: 6.9)	(Mono cast: 6.9)	(Mono cast: 6)









FOREST PROTECTION AND UTILIZATION  
STATE AND PRIVATE FORESTRY COOPERATION

		<u>Permanent full-time positions</u>
Appropriation, 1975 .....	\$34,784,000	195
Appropriation, 1976 .....	<u>32,994,000</u>	<u>227</u>
Appropriation, transition quarter .....	(9,802,000)	
Estimate, 1977 .....	<u>24,800,000</u>	<u>224</u>
Change from 1976 .....	<u>-8,194,000</u>	<u>-3</u>

SUMMARY OF INCREASES AND DECREASES  
(On basis of adjusted appropriation--dollars in thousands)

	<u>Increase or Decrease (-)</u>				<u>Total Permanent Full-time Positions</u>
	<u>Pay Costs</u>	<u>Program</u>	<u>Permanent Full-time Positions</u>	<u>Total 1977 Estimate</u>	
<u>General forestry assistance--</u>					
Increase consists of \$150,000 for specialists needed in connection with recently enacted legislation; \$150,000 to accelerate technical assistance program which could reduce losses in seasoning degrade by 200 million board feet; \$142,000 to accelerate Wild and Scenic River studies; and \$420,000 for an improved hardwood utilization program to increase the Nation's material supply by 280 million board feet at a cost of \$1.50 per thousand board feet. ....	\$106	\$862	4	\$5,429	136
<u>Cooperation in forest management and processing--</u> Increase consists of \$750,000 to expand the sawmill improvement program; \$480,000 to expand the improved timber harvesting program; \$456,000 to expand the multiple use management technical assistance and provide a full range of landowner services. ....	32	1,686	3	7,318	36
<u>Cooperation in forest fire control--</u> Decrease of \$10,939,000 is proposed as first step in phasing out the grant portion of this program.	55	-10,939	-10	11,712	46
<u>Cooperation in forest tree planting.</u> ....	4	- -	- -	341	6
Total, State and Private Forestry Cooperation. ....	<u>197</u>	<u>-8,391</u>	<u>-3</u>	<u>24,800</u>	<u>224</u>



FOREST PROTECTION AND UTILIZATION  
STATE AND PRIVATE FORESTRY COOPERATION

Project Statement  
(On obligation basis)

Project	1975	1976	Transition quarter	1977	Change from 1976
STATE AND PRIVATE FORESTRY COOPERATION:					
(23) Cooperation in forest fire control .....	\$25,088,271:	\$22,596,000:	\$7,614,000:	\$11,712,000:	-\$10,884,000
(24) Cooperation in forest tree planting .....	323,673:	337,000:	50,000:	341,000:	+4,000
(25) Cooperation in forest management and processing .....	5,569,519:	5,600,000:	608,000:	7,318,000:	+1,718,000
(26) General forestry assistance .....	3,698,714:	4,461,000:	1,530,000:	5,429,000:	+968,000
Total obligations or estimate .....	34,680,177:	32,994,000:	9,802,000:	24,800,000:	-8,194,000
Unobligated balance lapsing .....	103,823:	-	-	-	-
Appropriation or estimate .....	34,784,000:	32,994,000:	9,802,000:	24,800,000:	-8,194,000



## GEOGRAPHIC BREAKDOWN OF APPROPRIATIONS

## State and Private Forestry Cooperation

	1976 estimate	Transition quarter estimate	1977 estimate (in thousands)	Decrease 1976-1977
Alabama .....	\$915	\$256	\$787	\$128
Alaska .....	764	297	359	405
Arizona .....	216	75	120	96
Arkansas .....	806	225	668	138
California .....	1,705	653	1,135	570
Colorado .....	537	181	388	149
Connecticut .....	220	62	164	56
Delaware .....	126	36	96	30
District of Columbia .....	1,406	459	1,425	-19
Florida .....	1,116	311	859	257
Georgia .....	1,140	318	987	153
Guam .....	67	13	54	13
Hawaii .....	104	27	96	8
Idaho .....	683	224	397	286
Illinois .....	303	86	267	36
Indiana .....	264	75	208	56
Iowa .....	155	44	118	37
Kansas .....	431	145	287	144
Kentucky .....	793	222	616	177
Louisiana .....	902	251	675	227
Maine .....	800	228	585	215
Maryland .....	498	142	357	141
Massachusetts .....	362	103	254	108
Michigan .....	972	276	707	265
Minnesota .....	616	175	472	144
Mississippi .....	962	268	803	159
Missouri .....	910	258	656	254
Montana .....	502	162	382	120
Nebraska .....	362	123	245	117
Nevada .....	422	141	247	175
New Hampshire .....	261	74	220	41
New Jersey .....	454	128	306	148
New Mexico .....	302	102	173	129
New York .....	894	254	732	162
North Carolina .....	1,195	334	1,028	167
North Dakota .....	153	51	110	43
Ohio .....	423	119	360	63
Oklahoma .....	491	136	342	149
Oregon .....	1,476	346	739	737
Pennsylvania .....	894	253	709	185
Puerto Rico .....	164	30	50	114
Rhode Island .....	150	42	110	40
South Carolina .....	923	258	727	196
South Dakota .....	202	68	171	31
Tennessee .....	859	241	700	159
Texas .....	740	205	559	181
Utah .....	362	108	220	142
Vermont .....	232	66	203	29
Virgin Islands .....	- -	- -	19	-19
Virginia .....	1,013	285	867	146
Washington .....	992	352	673	319
West Virginia .....	458	131	394	64
Wisconsin .....	1,027	292	787	240
Wyoming .....	270	91	187	83
Total .....	32,994	9,802	24,800	8,194



COOPERATION IN FOREST FIRE CONTROL  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$25,135,000	55
1976 .....	22,596,000	56
Transition quarter .....	(7,614,000)	
1977 .....	11,712,000	46
Change from 1976 .....	<u>-10,884,000</u>	<u>-10</u>

A net decrease of \$10,884,000 and 10 permanent full-time positions are proposed as follows:

- (1) An increase of \$55,000 to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).
- (2) A decrease of \$10,939,000 is proposed as the first step in phasing out the grant portion of this program. The current total expenditures in this program are 84.8 percent by States and counties, 0.6 percent by private owners, and 14.6 percent by the Federal Government. It is expected that the States and counties will increase their share to continue the program of preventing and suppressing forest fires on private and non-Federal public lands. In fiscal year 1978 financial assistance to States will be discontinued. After fiscal year 1978 the Federal role will be one of coordination, training, development and procurement of equipment, and providing a nationwide fire prevention campaign.

Protection of non-Federal land from destruction by fire is primarily a State and local responsibility. The Federal role is one of providing technical support and financial assistance as incentive to the States in their effort.

The Forest Service also assists the States by fighting fires on State and private lands in instances where these fires pose a threat to Federal lands. The work is on a reimbursable basis. In 1975, the Forest Service provided firefighting services valued at approximately \$4.3 million.

Protection from fire is a necessity for the development of all forest resources--water, timber, special forest products, wildlife, forage, and recreation. The Cooperative Forest Fire Control program is authorized by the Clarke-McNary Act of 1924. During the first five-year period of the program (1924-1928) losses from wildfire were high with an average of 262 fires and 58,800 acres burned per million acres protected. This compared with 151 fires and 2,292 acres burned per million acres protected during the most recent five-year period (1970-1974). Another positive factor is the increase in protected area from 284 million acres in 1924 to over 631 million acres in 1974. Protection costs have grown from \$1.9 million in 1924 to over \$150 million in 1974. Much of the increase in fire control costs is due to the greater use of more effective and expensive new types of equipment and higher operating costs. There has been a significant increase in the use of aircraft in fire detection and suppression which is costly.

This program enables the State forestry agencies to organize and train effective fire control organizations. Air and water pollution will be lessened by reducing the number of wildfires, especially the large (over 300 acre) disaster-type fires. These are the most destructive as well as the most costly fires. Law enforcement training will be increased and fuels management, including use of prescribed fire, will be increased to reduce the risk of man-caused fire starts.

A formula that applies uniformly to all 50 State cooperators is used in distributing the Federal funds. The formula recognizes the two factors most directly related to fire control:

- (1) Extent of the fire protection job.
- (2) State and local performance as represented by expenditures.





Each of these factors is given equal weight. The half based on need is termed the "regular allotment" and is determined by a periodic fire protection analysis. A new analysis is currently in progress. The half based upon expenditures uses the average of the most current 3-year State and private expenditures and is termed the "extra allotment." The total of these two parts becomes the Federal allotment to each State. A sliding scale is used to reduce the total allotment to bring total State payments equal to available funds.

The table following this section shows proposed financing.

#### Examples of Recent Accomplishments

The effect of keeping well trained and equipped fire control forces for fast initial attack was demonstrated in calendar year 1974. There were only 1,511,477 acres burned on lands protected by State fire organizations.

The fire protection analysis study was completed. This is one of the periodic studies made to determine the cost of fire protection for non-Federal lands which qualify for protection under the Clarke-McNary Act. The study shows a total of 1,062,849,000 acres which qualify for fire protection. Of these, 180,526,000 acres are not planned for protection during the planning period. Upon acceptance of the study data by the National Association of State Foresters, 806 million acres will be protected at an estimated total cost of \$273 million. The remaining 76 million acres, which are planned for protection at an estimated cost of \$5.5 million, are primarily non-forested watershed lands. All cost estimates used in the study were 1974 prices.



COOPERATIVE FOREST FIRE CONTROL					Project (23)
(in thousands)					2/
1 / State and Private Funds Expended	Federal Allotments				
	FY 1974	FY 1975	FY 1976 (estimate)	Transition quarter (estimate)	FY 1977 (estimate)
Alabama .....	\$2,603	\$717	\$634	\$218	\$310
Alaska .....	2,186	504	448	154	219
Arizona .....	223	110	72	25	35
Arkansas .....	1,813	662	588	203	288
California ...	36,226	1,574	1,300	448	636
Colorado .....	2,446	409	394	136	193
Connecticut ..	104	168	144	49	70
Delaware .....	62	73	71	24	34
Florida .....	8,407	872	765	263	374
Georgia .....	7,697	895	769	265	376
Guam .....	- -	16	47	16	23
Hawaii .....	214	82	73	25	36
Idaho .....	1,470	473	407	140	199
Illinois .....	313	206	182	63	89
Indiana .....	178	130	115	39	56
Iowa .....	433	84	73	25	36
Kansas .....	1,068	314	301	104	147
Kentucky .....	1,440	536	475	164	233
Louisiana ....	3,653	780	682	235	333
Maine .....	2,181	625	557	192	273
Maryland .....	890	347	302	104	147
Massachusetts	878	295	259	90	127
Michigan .....	3,529	807	675	232	330
Minnesota ....	458	483	415	143	203
Mississippi ..	3,621	781	688	237	336
Missouri .....	2,200	653	568	196	278
Montana .....	2,173	310	329	113	161
Nebraska .....	999	273	262	90	128
Nevada .....	881	317	254	87	124
New Hampshire	393	169	153	53	75
New Jersey ...	1,195	385	332	114	162
New Mexico ...	347	153	101	35	49
New York .....	2,958	663	582	201	285
North Carolina	4,964	814	713	246	349
North Dakota .	23	67	69	24	34
Ohio .....	643	279	240	82	117
Oklahoma .....	868	386	356	123	174
Oregon .....	5,080	822	707	244	346
Pennsylvania .	3,796	642	569	197	279
Rhode Island .	231	99	89	30	43
South Carolina	3,747	760	670	231	328
South Dakota .	479	139	143	49	70
Tennessee ....	2,341	742	640	221	313
Texas .....	1,874	552	496	171	243
Utah .....	521	231	184	63	90
Vermont .....	89	92	80	28	39
Virginia .....	2,227	703	622	214	304
Washington ...	5,488	825	712	245	348
West Virginia	981	321	292	101	143
Wisconsin ....	3,209	758	664	229	325
Wyoming .....	486	194	184	63	90
Administration, inspec- tion, prevention and special services	- -	1,843	2,149	570	1,712
Total .....	130,286	25,135	22,596	7,614	11,712

1/ Actual fiscal year 1975 data not available.

2/ While the amount available to a State may, if the allotment is small, exceed previously computed expenditures by that State, the actual payment to a State never exceeds State and private funds expended by or under the control of the State.



COOPERATION IN FOREST TREE PLANTING  
(All capital investment)

		<u>Permanent full-time positions</u>
1975 .....	<u>\$336,000</u>	<u>5</u>
1976 .....	337,000	6
Transition quarter .....	(50,000)	
1977 .....	<u>341,000</u>	<u>6</u>
Change from 1976 .....	<u>+4,000</u>	<u>-</u>

An increase of \$4,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent fulltime positions is proposed.

This program provides financial and technical assistance to cooperating States in the production, acquisition, and distribution of tree seed and planting stock for forest and windbarrier plantings on non-Federal lands. Seed and trees thus furnished at modest cost form the backbone of current public forestation efforts which contribute to increased timber production and the enhancement of environmental values, including public recreation, wildlife habitat, and pollution abatement.

Program funds are used to assist the States in meeting the cost of seed extraction, seedling production, nursery maintenance, and other operations.

The procedure for allotment of funds provides for a project approach with funds to be allocated on the basis of projects which will be designed to stimulate more efficient nursery operations. Proposals to date include projects such as:

- (1) Containerized seedling production.
- (2) Mechanized seedling harvest.
- (3) Development of improved methods for seedling storage.

The number of trees that States shipped to landowners during each of the past 4 fiscal years follows:

<u>Year</u>	<u>Federal-State Cooperative Program (Seedlings)</u>
1971 .....	550,797,000
1972 .....	552,997,000
1973 .....	581,090,000
1974 .....	539,549,000

The drop in seedling production in 1974 can be ascribed to the temporary elimination of the tree planting cost-sharing programs.



REGULAR ALLOTMENTS TO STATES

	<u>FY 1976</u>	<u>FY 1977</u>
Alaska .....	- -	\$3,000
Arizona .....	\$6,000	6,000
Colorado .....	7,000	7,000
Delaware .....	2,500	2,500
Guam .....	8,000	7,000
Idaho .....	10,000	10,000
Kansas .....	10,000	10,000
Montana .....	10,000	10,000
Nebraska .....	8,000	8,000
Nevada .....	12,000	12,000
New Jersey .....	2,500	2,500
New Mexico .....	10,000	12,000
North Dakota .....	12,000	12,000
Oklahoma .....	9,000	9,000
Puerto Rico .....	2,500	3,000
Rhode Island .....	2,000	2,000
South Dakota .....	10,000	10,000
Utah .....	10,000	10,000
Virgin Islands .....	- -	3,000
Wyoming .....	4,000	4,000

SPECIAL PROJECT ALLOTMENTS TO STATES

	<u>FY 1976</u>	<u>FY 1977</u>
Alabama (Auburn University weed control) .....	\$26,000	\$20,000
California (sprinkler system) .....	- -	8,000
Idaho (transplanter, container planting, nursery study) .....	6,500	- -
New York (increased nursery production) .....	- -	15,000
Texas (weed control) .....	4,000	- -
Vermont (seed production) .....	5,000	- -
Virgin Islands (nursery improvements) .....	2,500	- -
Oregon (weedicide test) .....	- -	15,000
Montana (equipment development) .....	- -	18,000

Examples of Recent Accomplishments

There has been a steady improvement of the physiological condition of the seedlings produced throughout the country which translates into better survival figures, planting cost savings, and eventually, better erosion control, quicker environmental enhancement, and increased timber production. Seedlings that are now grown are sturdier, have a better top-root ratio, more compact and fibrous root-systems and are grown in shorter time, thus decreasing the need for nursery space.

New technology of containerized seedling production is being implemented at a rapid rate. Five years ago only 900,000 containerized seedlings were grown in the entire Pacific Northwest. In 1975, about 48 million seedlings were produced in 24 nurseries.

A new directory of forest tree seed orchards in the United States was published and serves as a source of improved seed for use in reforestation projects.





COOPERATION IN FOREST MANAGEMENT AND PROCESSING  
(All operation and maintenance)

		Permanent full-time positions
1975 .....	\$5,590,000	33
1976 .....	5,600,000	33
Transition quarter .....	(608,000)	
1977 .....	7,318,000	36
Change from 1976 .....	<u>+1,718,000</u>	<u>+3</u>

An increase of \$1,718,000 and three permanent full-time positions are proposed as follows:

- (1) To expand the sawmill improvement program that is presently underway and provide an additional yield of 625 million board feet from the same volume of logs at a cost of \$1.20 per MBF, \$750,000. Higher recovery of lumber from sawlogs can be achieved through quality control and application of new technology. According to data obtained to date, through this program, a 6 to 10 percent increase in lumber recovery from the same volume of logs can be gained through better quality control. Installation of new equipment can provide a 30 percent additional increase in lumber recovery in many mills.
- (2) To expand the improved timber harvesting program now underway, \$480,000. It is estimated that an additional 40 million cubic feet of timber can be placed on the market per year through the application of improved harvesting and utilization practice. Total industrial roundwood production for the United States in 1974 was approximately 11 billion cubic feet. In the process of harvesting this volume of wood, it is estimated that 8 billion cubic feet of timber were left in the forest in the form of unused thinnings, fire-, disease-, and insect-damaged timber and logging residue. About 60 percent of this volume could be converted to marketable products. Accelerated technical assistance to landowners and logging operators will enable them to make use of the improved harvesting and utilization practices and bring part of this wasted material to market.
- (3) To expand the multiple use management technical assistance and enable State forestry organizations to more adequately provide a full range of landowner services, \$456,000. Emphasis would be on developing technical expertise in State field organizations which are in direct contact with nonindustrial private forest landowners. Fields of expertise to be emphasized are forest range management, wildlife habitat development and management, the management of outdoor recreation opportunities and enhancement of forested watersheds. The proposed funding would increase livestock grazing by an estimated 50 thousand animal unit months while controlling destructive grazing on forest lands. Many forest landowners are seeking assistance other than timber management and this additional expertise will enable the field foresters to more effectively encourage multiple use management.
- (4) To provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$32,000.

Through State-Federal cooperative programs, technical assistance is provided to private nonindustrial woodland owners, loggers, wood-using industries, communities, and organizations concerned with the protection, management and use of forest resources. On-the-ground assistance is provided by State professional personnel with training and expert backstopping by Federal specialists.

Three-fifths of the productive forest land in the United States, or 296 million acres, is in the hands of nonindustrial private owners. Most of them lack the technical forestry skills required to manage the lands to provide their share of the Nation's needs for forest products and services. The program provides technical



assistance to these landowners, through State service foresters, to increase the flow of timber and nontimber products and to improve environmental values. The individual owner decides whether to implement the recommendations. A major effort of the program is to assist those landowners requesting cost-share payments from the local Agricultural Stabilization and Conservation Service offices through the Forestry Incentives Program (FIP) made available in 1975.

The program will continue to give special emphasis to the role of the private consulting forester in providing assistance to the nonindustrial private landowner. Opportunities will be identified and developed for consulting foresters to establish and expand their forestry assistance operations.

Technical assistance is given to loggers, sawmill, and other plant operators to improve logging, processing and business methods to improve the supply of softwood lumber and plywood through the reduction of wood waste and increased utilization of wood residue. The program of technical assistance to sawmill operators through the sawmill improvement program and closely related activities will continue in fiscal year 1977. The emphasis is on expanding and improving the capability of the States in forest products utilization activities. An estimated 200 mill analyses will be completed during fiscal years 1975 and 1976.

State forestry personnel provide specialized forestry assistance to rural development committees throughout the Nation. State personnel serve on State committees, sub-State units, and rural communities, thereby strengthening the overall effectiveness of local rural development efforts.

Technical assistance is provided in cooperation with the State forestry agencies in 50 States, Puerto Rico, the Virgin Islands, and Guam. Base level Federal appropriated funds are distributed to the States by formula which is applied to each State's need and performance.

- (1) Need is based on the number of small woodland owners in the State and the acres of commercial forest owned expressed as a percentage of the total in the Nation.
- (2) Performance is based on State funds expended in excess of Federal funds. The excess is determined for each State and then expressed as a percentage of the total excess for all States.
- (3) The average of the need and performance percentages for each State represents the State's share of total funds available for distribution.
- (4) Each State is guaranteed a minimum of \$30,000 or the amount it can match up to \$30,000.

Funds for the sawmill improvement and improved harvesting programs will be distributed separately based on targets developed in cooperation with the States. For the sawmill improvement program, targets will directly reflect the number of mill analyses planned by the States and indirectly, the additional product yields obtainable.



Major work accomplishments are shown in the following table:

<u>Major benefits</u>	<u>Unit</u>	<u>FY 1975</u> (actual)	<u>FY 1976</u> (estimated)
Woodland owners assisted .....	No.	117,000	125,000
Forest products operators assisted .....	No.	5,700	5,800
Incidental forestry assistance .....	No.	190,000	190,000
Area of woodland involved .....	Acres	7,000,000	7,500,000
Area harvested under improved practices .....	Acres	1,370,000	1,500,000

The following illustrates some of the forest land improvement work attributable to the coordinated efforts of technical assistance and financial incentives:

	<u>CY 1974</u>	<u>CY 1975</u>
Tree planting and seeding (acres) .....	450,000	460,000
Timber stand improvement (acres) .....	270,000	280,000

#### Examples of Recent Accomplishments

A Union County, South Dakota, landowner became a cooperator in 1974 so that he could transform an unproductive forest that supported only weeds, scrub growth, and dead trees into a productive forest. He received technical assistance from the State Division of Forestry in drawing up a forest management program and to qualify for financial assistance. About 10 acres of land will be renovated annually by planting black walnut seedlings.

The importance of local markets to the development of forest management on private lands has been demonstrated in western Nebraska. New ownership in a local sawmill has focused attention on utilization of the pine timber resource. In direct response, the State has increased its technical assistance program to enable it to provide a full service to forest landowners.

A Floyd County, Kentucky, landowner received advice from the State Division of Forestry that enabled him to substantially increase his income from the sale of timber. As a result, he has become conscious of the need for careful planning and management of his timber property and has adopted recommendations made by foresters. A landowning partnership of doctors in Garrard County has begun a multiple use management program on recently purchased land. Both timber production and wildlife habitat improvement are objectives. Tree planting, timber stand improvement, and forest fire protection practices have been initiated.

A Jackson, South Carolina, resident received an offer of \$900 for the timber on one acre of land. Instead of immediately selling, she contacted the CFM project forester who assisted her in marking the timber and offered advice in making the sale. She was able to receive more than six times what she had been previously offered.

A Montana realtor and owner of 313 acres of forest land actively cooperates with the Division of Forestry as well as other State and Federal agencies. A complete forest management program has been implemented on his property, utilizing available technical and financial assistance. The success of this effort is reflected in his primary occupation as he informs each person purchasing land from him of the services available from the State Division of Forestry.

The CFM program in Hawaii, although small, has found ample opportunity to be of assistance to forest landowners. Assistance in maintenance and harvesting methods has been provided growers of Norfolk Island pine Christmas trees. Evaluation of the potential of tree fern as a marketable forest product has been given operators and producers in the Islands. The plant has use in the flower growing industry, in landscaping, and as a carving material.





Thirty years of cooperation have existed between a forest landowner of Venango County, Pennsylvania, and the Bureau of Forestry. A timber sale on a 5-acre woodland initiated the management program. Subsequent timber sales were made in 1959 and 1974 with the total amount realized coming to well over \$6,000, excellent testimony to the value of proper management even on small tracts. The owner, now in his late sixties and handicapped, continues his interest in forestry as he has begun a timber stand improvement project on a 15-acre woodland on another part of his property.

Multiple use management is given as the reason for the successful operation of a farm and forest enterprise in Florida. Faced with rising costs and salaries and lack of adequate income, the owner called upon all available sources of assistance. The Florida Division of Forestry worked closely with other agencies in planning and developing an action program for the property. Timber was thinned to provide periodic income. A cattle operation, compatible with timber growing was started. Sales of seasonal greenery and nuts were made to supplement income. A flourishing and financially rewarding business is the result.

Forest products specialists' assistance to the operators of a Colorado sawmill and planing mill has resulted in elimination of air pollution caused by burning the mills' residue. Wood shavings are baled and sold for poultry and animal bedding and sawdust is processed into compressed fuel logs. In addition to converting a waste disposal problem into a profitable undertaking, four new full-time jobs were created in a period characterized by high unemployment in the forest products industries.

Privately-owned plantations, established in Michigan 25 to 35 years ago, have presented a challenge in forest management and utilization. Small size and lack of landowner interest in timber harvest contribute to little interest by commercial loggers in this resource. Through a State forestry-sponsored plantation aggregate project utilizing two consulting foresters, economically feasible blocks of timber ready for harvest have been assembled and sold. Timber marked for harvest in accordance with an individual management plan for each owner is finding its way to multiproduct markets that include pulpwood, posts and poles, fireplace wood, and bark mulch and bedding.

Sawmill improvement program. Computerized studies by Forest Service-State forester teams have shown over 425 sawmill owners in the United States how they can stretch the timber supply by producing more lumber from each log.

Under the sawmill improvement program (SIP), 425 sawmills producing 5.3 billion board feet of softwood lumber have been evaluated since June 1973. The production of these mills represents 16 percent of the Nation's annual output of softwood lumber. An individual analysis was given each mill after the team analyzed operations, gathered data, and fed the information into computers. The analyses reveal that 6 percent more lumber, amounting to 320 million board feet, could be produced at these mills from the same volume of sawlogs by improved bucking and sawing methods. An additional 25,000 homes could be built from the 320 million board feet. If these mills also installed computerized sawing systems, they could get 30 percent more lumber, or 1.2 billion board feet. This program has proven to be a most cost-effective, short-range means of increasing lumber production.

Consulting foresters and engineers have praised the Forest Service and cooperating State foresters for the efficient way in which the program has been conducted. The program has been strongly endorsed by the Sierra Club as an effective means of reducing wastes of natural resources and utilizing more of the wood residues that were previously disposed of in a polluting manner.

After an initial sawmill analysis in an Idaho sawmill, careful steps taken to tighten control and increase recovery were found by a reanalysis to be so successful that the mill manager is continuing his own "Maximum Recovery Program." Based





on the SIP approach, this recovery and quality control covers the firm's operations from log making through milling. The manager noted: "We were able to establish just what our actual lumber recovery factor was at a certain time, using certain equipment, personnel, and methods. We then could measure our improvement through supplementary SIP studies. Putting our mill into a laboratory test tube with variables known and controlled is a real thing with SIP."



The following table shows financing (in thousands):

	1975	1976 estimate	Transition quarter estimate	1977 estimate
Alabama .....	\$130	\$126	\$10	\$222
Alaska .....	30	30	2	30
Arizona .....	33	33	3	43
Arkansas .....	113	112	9	180
California .....	76	76	6	152
Colorado .....	56	56	4	72
Connecticut .....	34	34	3	45
Delaware .....	30	30	2	31
Florida .....	221	216	17	228
Georgia .....	219	219	17	316
Guam .....	8	8	1	8
Hawaii .....	28	28	2	31
Idaho .....	46	38	4	69
Illinois .....	73	73	6	98
Indiana .....	73	63	6	90
Iowa .....	42	42	3	47
Kansas .....	36	36	3	44
Kentucky .....	166	166	13	199
Louisiana .....	105	105	8	140
Maine .....	110	110	8	137
Maryland .....	80	80	6	103
Massachusetts .....	42	42	3	51
Michigan .....	142	142	11	166
Minnesota .....	102	102	8	128
Mississippi .....	153	153	12	227
Missouri .....	163	163	13	182
Montana .....	57	51	4	79
Nebraska .....	36	36	3	36
Nevada .....	32	32	3	37
New Hampshire .....	56	55	4	80
New Jersey .....	43	43	3	50
New Mexico .....	46	46	4	60
New York .....	172	172	13	213
North Carolina .....	288	283	22	372
North Dakota .....	30	30	2	31
Ohio .....	123	123	9	136
Oklahoma .....	49	49	4	57
Oregon .....	61	61	5	157
Pennsylvania .....	173	173	13	218
Puerto Rico .....	30	30	2	32
Rhode Island .....	34	25	3	32
South Carolina .....	137	137	11	182
South Dakota .....	32	32	3	40
Tennessee .....	99	100	8	177
Texas .....	105	105	8	149
Utah .....	35	41	3	54
Vermont .....	97	97	7	103
Virgin Islands .....	9	13	1	10
Virginia .....	225	225	18	304
Washington .....	78	95	6	124
West Virginia .....	82	82	7	133
Wisconsin .....	189	189	16	227
Wyoming .....	34	34	3	37
Total to States .....	4,663	4,642	365	6,169
Forest Service administration	927	958	243	1,149
Total appropriation .....	5,590	5,600	608	7,318



GENERAL FORESTRY ASSISTANCE  
(All operation and maintenance)

		<u>Permanent full-time positions</u>
1975 .....	\$3,723,000	102
1976 .....	4,461,000	132
Transition quarter .....	(1,530,000)	
1977 .....	5,429,000	136
Change from 1976 .....	<u>+968,000</u>	<u>+4</u>

An increase of \$968,000 and 4 permanent full-time positions are proposed as follows:

- (1) For employment of highly trained specialists for recently enacted legislative programs, \$150,000. The programs which have created major impacts on Federal, State and local governments and the private sector in the planning, development, and use of forest lands are:

- The HUD 701 program as broadened by the 1974 amendments to the Housing Act of 1954;
- Coastal Zone Management, PL 92-583; and
- Water Pollution Control Act, PL 92-500, particularly the requirements to identify and prescribe controls for nonpoint source pollution.

The legislation includes deadline requirements for various actions. Forest Service efforts will assist State foresters in planning, data gathering, analysis, evaluation, legislative processes, training, and implementation of research and technology.

- (2) To accelerate technical assistance program which could reduce losses in seasoning degrade by 200 million board feet, \$150,000. The need for effective control of wood drying losses is accentuated by low profit margins in lumber-producing and remanufacturing industries. Studies indicate losses of \$8-\$11 per thousand board feet of lumber produced. Available research, if widely utilized, would reduce such losses to \$1-\$2 per MBF.
- (3) To accelerate study activities on Wild and Scenic Rivers, \$142,000. There are 29 new studies which must be completed by October 2, 1979.
- (4) For an improved hardwood utilization program to increase the Nation's material supply, \$420,000. Technical assistance to hardwood producers, manufacturers, and consumers would result in more economical and environmentally acceptable utilization. These proposed funds would yield an additional 280 million board feet of hardwood lumber from the current hardwood cut at a cost of \$1.50 per thousand board feet.
- (5) To provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$106,000.

General forestry assistance funds are used to accomplish highly specialized forestry assistance not available through other Forest Service cooperative programs. A major portion of the funds is used to provide professional assistance to State forestry agencies, woodland owners, associations, and the wood industry to enhance rural community development and to achieve more efficient management, increase production, and improve processing of the Nation's timber resources.

General forestry assistance funds are used to provide expert forest resource management and use assistance in such activities as:



- (1) Forest products utilization.
- (2) Dissemination of forest research findings.
- (3) Continuous forest inventory.
- (4) Advisory management services provided to State forestry agencies, including organizational management training.
- (5) Multiple use management.
- (6) Forest hydrology.
- (7) Wild and scenic river studies.
- (8) Threatened and endangered species.
- (9) Land use planning.
- (10) Special studies.

Technical assistance is provided directly by the Forest Service or through specific agreements with State foresters, colleges, and/or private contractors.

Examples of activities currently being conducted are:

- (1) Pollution abatement planning and control. In implementing the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500), the State and the designated agencies must identify, assess and plan for the control of pollution from all lands. The Forest Service is helping the State foresters work with Section 208 agencies by providing information, training, and technical assistance.
- (2) Cooperative land use planning. Technical assistance is provided to State foresters in cooperative land use planning. State foresters are providing to State or sub-State planning agencies data and specialized forest land planning and evaluation information. These efforts assure that forest resources are considered in all aspects of State and local planning and development. The balance achieved through the inclusion of forest areas and resources in the planning and implementation activities provides for:
  - (a) Employment for local workers.
  - (b) Recreation for resident and non-resident visitors.
  - (c) Adequate supplies of quality water.
  - (d) Raw materials such as timber and specialty products that will increase income and jobs.
  - (e) Open space and esthetically pleasing environment for rural community living.
- (3) Wild and Scenic Rivers Act of 1968. The Forest Service has lead responsibility for the Department of Agriculture relating to studies under the Wild and Scenic Rivers Act of 1968. In addition to the rivers assigned to the Department, the Forest Service coordinates USDA input to Interior-led studies. For fiscal year 1977, some work remains on 9 of the original 27 studies. In addition, 29 new rivers have been designated for detailed study, under PL 93-621. Funds are used to carry out the full Federal responsibility and to augment the States' efforts under the Act. These activities are needed to assure that study areas are evaluated against the criteria of PL 90-542 and to meet the Nation's demand for a quality environment.
- (4) Forest land aggregates. Many private nonindustrial forest landowners lack knowledge of forest management and marketing practices. Because of this, many of these ownerships are not managed to produce forest products beyond a level which accrues in unmanaged forest stands. A pilot test of aggregation to improve the effectiveness of technical assistance delivery and to provide management and marketing assistance to members of the aggregate organization through a private consulting forester is underway in Arkansas.





- (5) Forest products utilization. State and Forest Service personnel, working closely with private consultants and university staff members are extending the Nation's supply of forest resources by determining new and better uses for logging and milling residues and low quality trees. For example, the processing and merchandising of sawdust, bark, and even twigs and needles, has expanded dramatically since foresters began analyzing the benefits of using these materials for soil amendments and as a mulch.

Examples of recent accomplishments follow:

Pollution abatement planning. A Forest Service hydrologist has worked closely with the Florida, North Carolina and Virginia State foresters and the Section 208 agencies (PL 92-500) in identifying the magnitude and extent of pollution from forest lands. They are also assisting in defining the Best Management Practices (BMP) for controlling pollution from forested lands. A procedure for estimating the current and potential pollution from forested lands has been developed. Training in the procedures is being provided to State forestry, industry and Section 208 agency personnel.

North Carolina. A consultant was employed to consolidate recent planning efforts of river basin studies, small watershed plans and resource conservation and development forestry plans into a single document. The forestry information for the State was incorporated into a Statewide land use plan.

Florida. A professional planner is now employed by the Division of Forestry to work with the various county planning commissions. This input is very helpful and in some instances, conversion or development of forest land is not authorized until approved by the county forester.

Improved harvesting program. This program, begun in fiscal year 1975, is designed to put more timber on the market with less waste and reduced environmental impacts through improved harvesting and utilization techniques. The program, which is being conducted through cooperating State foresters on a project basis, includes projects of the following nature:

- (1) Improved timber availability and access.
- (2) Multiproduct logging.
- (3) Improved felling and bucking.
- (4) Utilization of recoverable wood from urban areas.
- (5) Timber salvage.

A computer program will be used to analyze the efficiency of felling and bucking based on data obtained from actual logging operations.

Projects funded in 34 States in the first 2 years are estimated to have a first-year benefit of increasing timber recovery by more than 130 million cubic feet (nearly three-quarters of a billion board feet).

Alaska. In a series of field forestry workshops developed and conducted by Forest Service specialists at the request of the Indian tribal corporations, representatives of southeastern Alaska corporations were introduced to forestry planning and operations, harvesting and marketing of forest products, and land use planning. Success of the workshops in helping the corporation members understand the needs and opportunities for sound forestry measures on their lands was indicated by comments such as: "We had no prior knowledge of any of this and realize how much we needed it." "Thank you for coming. We want you to come back. We now begin to understand forestry and tools."



Endangered species. Forest Service personnel have been working with the Fish and Wildlife Service personnel on responsibilities under the Endangered Species Act of 1973 (87 Stat. 884). The work has mainly been locating habitats of threatened and endangered species--including both animals and plants. Forest Service biologists have been assigned to recovery teams that (1) locate critical habitats, (2) evaluate limiting factors to the animal's recovery, (3) recommend compatible management practices, and (4) pinpoint areas where further studies are needed before habitats can be safely managed.

Forest Service personnel also have been training State foresters in responsibilities under the Act.

Management assistance to State forestry agencies. Through cooperative efforts the Forest Service strengthens its management assistance to State forestry organizations. The purpose of this assistance is to help States improve their organizations, management skills and training programs. Improved skills will result in increased effectiveness in the protection and management of forest and related natural resources.



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
STANDARD FORM 304-T FOREST PROTECTION AND UTILIZATION

A-11-34b

Type also:  
17n M4/24

June 1974, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

State and Private Forestry Cooperation

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1975 actual	1976 estimate	1977 estimate	1977 estimate
05-96-1100-0-1-302				
FOREST SERVICE--Direct Obligations:				
Personnel compensation:				
11.1 Permanent positions.....	3,200	4,192	1,102	4,134
11.3 Positions other than permanent.....	146	183	37	183
11.5 Other personnel compensation.....	8	5	1	5
11.8 Special personal services payments.....	1	.....	.....	.....
Total personnel compensation.....	3,355	4,380	1,140	4,322
Personnel benefits:				
12.1 Civilian.....	418	525	132	520
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	571	570	200	600
22.0 Transportation of things.....	72	70	50	85
23.0 Rent, communications, and utilities.....	145	145	50	150
24.0 Printing and reproduction.....	164	165	50	175
25.0 Other services.....	1,066	1,079	5,675	1,858
26.0 Supplies and materials.....	129	130	100	150
31.0 Equipment.....	131	130	100	150
<del>32.0 Lands and structures.....</del>				
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	27,901	25,750	2,300	16,750
42.0 Insurance claims and indemnities.....	728	50	5	40
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
direct				
<del>99.0</del> Total obligations.....	34,680	32,994	9,802	24,800

(Mono cast: 22.18)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5)



Type Alg:  
17b M6C22

**STANDARD FORM 304-T FOREST PROTECTION AND UTILIZATION**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-101T State and Private Forestry Cooperat

## State and Private Forestry Cooperation

**OBJECT CLASSIFICATION** (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	19 TQ estimate	77 estimate
05-96-1100-0-1-302				
FOREST SERVICE--Reimbursable obligations:				
Personnel compensation:				
11.1 Permanent positions.....	28	25	6	25
11.3 Positions other than permanent.....	3	.....	.....	.....
11.5 Other personnel compensation.....	1	.....	.....	.....
<del>11.8 Special personal services payments.....</del>				
Total personnel compensation.....	32	25	6	25
Personnel benefits:				
12.1 Civilian.....	3	3	1	3
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	5	5	3	5
22.0 Transportation of things.....	1	2	1	2
<del>23.0 Rent, communications, and utilities.....</del>				
<del>24.0 Printing and reproduction.....</del>				
25.0 Other services.....	591	613	264	613
26.0 Supplies and materials.....	35	50	25	50
31.0 Equipment.....	2	2	.....	2
<del>32.0 Lands and structures.....</del>				
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	6	.....	.....	.....
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
.....				
.....				
reimbursable				
99.0 Total obligations.....	675	700	300	700
99.0 Total obligations	35,355	33,694	10,102	25,500
(Mono cast: 22.18)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





A-11-34b

**STANDARD FORM 300-T**  
June 1973, Office of Management and Budget  
Circular No. A-11, Revised.

30







# COOPERATIVE RANGE IMPROVEMENTS

Appropriation, 1975 .....	\$700,000
Appropriation, 1976 .....	700,000
Appropriation, transition quarter .....	( - - )
Estimate, 1977 .....	<u>700,000</u>
Operation and maintenance .....	\$490,000
Capital investment .....	210,000

## PROJECT STATEMENT

Project	Transition:			
	1975	1976	quarter	1977
	estimate	estimate	estimate	estimate
Cooperative range improvements .....	\$679,172	\$720,828	- -	\$700,000
Unobligated balance brought forward .....	- -	-20,828	- -	- -
Unobligated balance carried forward .....	20,828	- -	- -	- -
Appropriation or estimate .....	700,000	700,000	- -	700,000

Part of the grazing fees from the National Forests, when appropriated, are used for revegetation of depleted rangelands, construction and maintenance of range improvements, rodent control, and eradication of poisonous plants and noxious weeds. These funds are advanced to, and merged with, the appropriation, Forest Protection and Utilization, subappropriation, Forest Land Management.

Section 12 of the Act of April 25, 1950, (Granger-Thye Act) provides that of the money received from grazing fees by the Treasury from each National Forest during each fiscal year there shall be available at the end thereof, when appropriated by Congress, an amount equivalent to 2 cents per animal month for sheep and goats and 10 cents per animal month for other kinds of livestock under permit on such National Forest during the calendar year in which the fiscal year begins.

Since figures for animal months permitted are not available until after more than one-half of the fiscal year for which funds are appropriated has elapsed, the 1977 appropriation request of \$700,000 represents the best current approximation of the amount which will become available in the calendar year 1976 under the animal-months-permitted formula.

For calendar year 1974, the latest available figures, animal months permitted were 6.7 million for cattle and horses, and 3.7 million for sheep and goats. This calculates to \$744,000 available under the formula.



## FOREST SERVICE

## COOPERATIVE RANGE IMPROVEMENTS

**STANDARD FORM 300-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)

[illegible]









# CONSTRUCTION AND LAND ACQUISITION

Appropriation, 1975 .....	\$31,337,000
Appropriation, 1976 .....	18,134,000
Appropriation, Transition quarter .....	(11,074,000)
Estimate, 1977 .....	14,414,000
Change from 1976 .....	<u>-3,720,000</u>

## SUMMARY OF INCREASES AND DECREASES

	<u>Increase or Decrease (-)</u>			<u>Total</u>	
	<u>Pay Costs</u>	<u>Program</u>	<u>Permanent Full-time Positions</u>	<u>Total 1977 Estimate</u>	<u>Permanent Full-time Positions</u>
<u>Recreation use areas--The amount of \$3,740,000 is proposed to be used for construction of projects previously started, planning new construction, reconstruction of worn-out facilities, and expansion of existing recreation projects. ..</u>					
	\$52,000	\$638,000	- -	\$3,740,000	69
<u>Construction for fire, administration, and other purposes--The amount of \$2,665,000 is programed to construct projects necessary to support forest land management activities. .</u>					
	22,000	181,000	- -	2,665,000	27
<u>Land Acquisition, Weeks Act--The amount of \$1,740,000 will provide for the acquisition of land to protect headwaters of navigable streams against land abuse, and for production of timber. ....</u>					
	9,000	206,000	- -	1,740,000	12
<u>All other--Decreases are due to nonrecurring construction projects.</u>					
<u>Research construction .</u>	3,000	-1,625,000	- -	213,000	7
<u>Pollution abatement ...</u>	340,000	-3,546,000	- -	6,056,000	413
Total .....	<u>426,000</u>	<u>-4,146,000</u>	<u>- -</u>	<u>14,414,000</u>	<u>528</u>



PROJECT STATEMENT  
(On basis of adjusted appropriation)

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
(1) Forest land management construction:					
(a) Recreation use areas	\$7,155,000	\$3,050,000	\$1,010,000	\$3,740,000	+\$690,000
(b) Construction for fire, administration, and other purposes .....	1,748,000	2,462,000	1,512,000	2,665,000	+203,000
(2) Research construction	3,957,000	1,835,000	- -	213,000	-1,622,000
(3) Pollution abatement ..	16,896,000	9,262,000	8,050,000	6,056,000	-3,206,000
(4) Land Acquisition, Weeks Act .....	1,581,000	1,525,000	502,000	1,740,000	+215,000
Appropriation or estimate	31,337,000	18,134,000	11,074,000	14,414,000	-3,720,000

PROJECT STATEMENT  
(On obligations basis)

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
(1) Forest land management construction:					
(a) Recreation use areas .....	\$4,894,046	\$7,300,597	\$1,010,000	\$3,740,000	-\$3,560,597
(b) Construction for fire, administration, and other purposes .....	2,113,960	2,462,000	1,512,000	2,665,000	+203,000
(2) Research construction	3,318,288	5,474,657	- -	213,000	-5,261,657
(3) Pollution abatement ..	14,483,850	19,074,255	8,050,000	6,056,000	-13,018,255
(4) Land Acquisition, Weeks Act .....	978,710	2,137,794	502,000	1,740,000	-397,794
Total obligations or estimate .....	25,788,854	36,449,303	11,074,000	14,414,000	-22,035,303
Unobligated balance brought forward ...	-12,767,157	-18,315,303	- -	- -	+18,315,303
Unobligated balance carried forward ...	18,315,303	- -	- -	- -	- -
Appropriation or estimate	31,337,000	18,134,000	11,074,000	14,414,000	-3,720,000



CONSTRUCTION AND LAND ACQUISITION  
(All capital investment)

		<u>Permanent full-time positions</u>
Appropriation, 1975 .....	\$31,337,000	473
Appropriation, 1976 .....	18,134,000	528
Appropriation, transition quarter .....	(11,074,000	
Estimate, 1977 .....	14,414,000	528
Change from 1976 .....	<u>-3,720,000</u>	<u>--</u>

A net decrease of \$3,720,000, with no change in permanent full-time positions is proposed as follows:

- (1) Increase of \$638,000 to construct projects necessary to support forest land management activities.
- (2) Increase of \$206,000 for Weeks Act land acquisition.
- (3) Increase of \$181,000 for construction and reconstruction of recreation use area projects.
- (4) To provide for the costs of the pay increase effective in October 1975 (Executive Order 11883), \$426,000.
- (5) Decrease of \$5,171,000 due to nonrecurring construction projects.

The program provides for the construction and improvement of buildings, utilities, other physical facilities and land acquisition throughout the National Forests and National Grasslands. The financing for some development projects, including relatively minor construction projects estimated to cost less than \$25,000, is provided by the operating and research programs of which such construction items are an integral part.

- (1a) Recreation use areas (\$3,740,000, an appropriation increase of \$690,000, with no change in permanent full-time positions. On the basis of program level, there will be a decrease of \$3,560,597 from the 1976 level of \$7,300,597.)

GOAL: The Forest Service goal is to manage the recreation resource on National Forest lands to best serve the steadily increasing numbers of Americans seeking inspiration, enjoyment, and relaxation in the outdoors.

To meet this objective, items 1(a) and 1(b) will provide recreation and interpretive facilities on National Forest System lands to meet the most critical demands for diverse forest-based outdoor recreation opportunities. Design and construction will stress preserving environmental values, which make up a quality experience, and the needs of all people including the physically, economically, and socially disadvantaged. The most urgent and expanding urban needs will be served congruent with contributing to rural community stability.

The proposed program level will be matched to those projects reflecting the highest order of relative priority. The following activities are proposed with fiscal year 1977 funds:

	<u>No. of Sites</u>
(1) Plan new construction .....	4
(2) Complete construction previously started .....	9
(3) Reconstruction of worn-out facilities .....	37
(4) Expansion .....	19

The lists of proposed projects are included in Exhibit I.





- (1b) Construction for fire, administration, and other purposes (\$2,665,000, an appropriation increase of \$203,000, with no change in permanent full-time positions. On the basis of program level, there will be an increase of \$203,000 from the 1976 level of \$2,462,000.)

GOAL: To support the Forest Service land management programs by providing adequate structural improvement and communications necessary to achieve the program objectives.

Water and sanitation systems--to replace worn out, improve existing, or construct 12 new systems that will comply with Federal and State water quality standards at a total cost of \$755,000.

Specific project locations are as follows:

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount</u>
Montana	Kootenai	Trout Creek (water)	\$60
Montana	Kootenai	Murphy Lake (sanitation)	190
Montana	Regionwide	Missoula HFD Fire Protection (water)	77
Idaho	Panhandle	Bonniers Ferry (sewer)	38
Oregon	Wallowa-Whitman	Pine Sewer System	68
Oregon	Fremont	Silverlake Water System	178
Oregon	Fremont	Paisley Water System	41
Washington	Mt. Baker-Snoqualmie	Komo Kulsan Water System	23
Washington	Mt. Baker-Snoqualmie	North Bend (drainage)	7
Washington	Mt. Baker-Snoqualmie	North Bend (sewer)	13
Washington	Mt. Baker-Snoqualmie	Stevens Pass (sewer)	20
Arkansas	Ozark	Ozark Administrative Site Utility (water and sewer)	40

Offices--Two offices to be constructed at a cost of \$201,000 as follows:

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount</u>
Wisconsin	Nicolet	Lakewood Ranger District	\$26
Alaska	Tongass	Juneau Work Center	175

Dwellings--Three to be constructed at a total cost of \$245,000 in rural and isolated locations where rental housing is not available. They will be located as follows:

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount</u>
Idaho	Payette	Krassel	\$72
Illinois	Shawnee	Jonesboro Ranger District	26
Alaska	Tongass	Juneau Work Center (crew quarters)	147

Communications system (radios)--Five systems will be improved through new construction or upgrading existing systems at a total cost of \$796,000 at the following locations:

<u>State</u>	<u>National Forest</u>	<u>System</u>	<u>Amount</u>
New Mexico	Lincoln	Lincoln radio	\$52
Idaho	Caribou	Caribou radio	1
Idaho	Targhee	Targhee radio	160
Region 9	Regionwide	Radio replacement	123
California	Regionwide	Radio conversion	460



Service and storage buildings--Four to be constructed at a cost of \$448,000 as follows:

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount</u>
Michigan	Ottawa	Kenton Warehouse	\$50
Alaska	Tongass	Juneau Work Center Warehouse	270
Alaska	Tongass	Juneau Work Center equipment storage	93
Alaska	Tongass	Ketchikan Marine facility	35

Airport project and lookout--Two to be constructed at a cost of \$220,000 for protection of the National Forests from wildfires as follows:

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Amount</u>
New Mexico	Lincoln	Alamogordo Tanker Base	\$195
Idaho	Sawtooth	Mt. Harrison Lookout	25

#### Examples of Recent Accomplishments

The following units were constructed or reconstructed or construction contracts awarded in fiscal year 1975:

<u>Units</u>	<u>No.</u>
Water and sanitation systems .....	8
Communication systems upgraded and modernized	6
Offices .....	1
Dwellings .....	8
Service and storage buildings .....	3

- (2) Research construction (\$213,000, an appropriation decrease of \$1,622,000 with no change in permanent full-time positions. On the basis of program level, there will be a decrease of \$5,261,657.)

The proposed funds will be used for:

- (a) Tree seed processing shop, Starkville, Mississippi ..... \$79,000
- (b) Remodeling to provide additional laboratory space at the Institute of Forest Genetics, Rhinelander, Wisconsin ..... 35,000
- (c) Soils laboratory and instrument laboratory within existing structure at Coweeta, Franklin, North Carolina ..... 66,000
- (d) Security fencing, well, overflow ditches and road improvements at the Hastings Research Area, Adams County, Nebraska 33,000

- (3) Pollution abatement (\$6,056,000, an appropriation decrease of \$3,206,000, with no change in permanent full-time positions. On the basis of program level, there will be a decrease of \$13,018,255 from the 1976 level of \$19,074,255.)

GOAL: To reduce water pollution from existing Forest Service facilities consistent with State water quality standards as required by PL 92-500 and E.O. 11752.

The program is to continue work required by PL 92-500 and E.O. 11752 and related State and Federal standards promulgated by that Act. Such action will include investigation of both point and non-point discharges including monitoring and surveillance systems and corrective action on identified deficient National Forest lands and facilities. Where corrective action on previously unidentified sites is found to be necessary, funds will be used for thorough analysis and preliminary design. Corrective action proposed at administrative and recreation sites is primarily to meet requirements established by EPA issued NPDES discharge permits under Sec. 402 of the Act.



(a) Point discharge evaluation and design .....	\$711,000
(b) Correct deficient administrative site .....	734,000
(c) Correct deficient recreation sites .....	3,411,000
(d) Non-point monitoring, evaluation, and design .....	1,200,000
Total .....	6,056,000

Pollution abatement and prevention requirements aimed largely at point source discharges have been broadened by PL 92-500.

- (4) Land Acquisition, Weeks Act (\$1,740,000, an appropriation increase of \$215,000, with no increase in permanent full-time positions. On basis of program level, there will be a decrease of \$397,794 from the 1976 level of \$2,137,794.)

Acquisition of key watershed and timber producing lands primarily in the Eastern United States. The lands acquired through this program will insure quality water yields, enhance the environment, and through proper management, provide future harvests of valuable renewable resources.

This program is concentrated in the depressed areas of Appalachia and in Midwestern States where public ownership is limited. Funds proposed in 1977 will involve the acquisition of approximately 14,000 acres of key watershed and timber-producing lands.

In the past 3 years land costs have increased at a slower rate; however, payments required by PL 91-646 and increased costs of doing business results in less acreage acquired per dollar expended. At the current funding level fewer acres will be acquired each year. Sound management of acquired areas will contribute to:

- (a) Stabilization of the local economy.
- (b) Environmental enhancement.
- (c) Prevention of stream pollution in rural America.
- (d) Improved timber production.

Lands primarily valuable for recreation are not included in this program, since acquisition of such lands is financed under the Land and Water Conservation Fund.

See the tabulation at the end of this section for more detailed information on the actual and planned accomplishments in fiscal years 1975-1977 (Exhibit II).

#### Examples of Recent Accomplishments

In 1975, a total of 77 tracts were contracted for purchase under authority of the Weeks Act using regular appropriated Weeks Act funds. These cases involved the acquisition of 6,099 acres at a total cost of \$761,412. These transactions involve lands suited to timber production and watershed protection in areas where National Forest ownership needs to be consolidated or extended to facilitate these programs. Many of the smaller parcels, 20-40-80 acres in size, are purchases made at a price equal to, or nearly equal to, the cost that would otherwise have been incurred to survey, post, and mark the National Forest boundary surrounding the property.



EXHIBIT I -- RECREATION USE -- FY 1977  
CAPITAL INVESTMENTS

<u>State</u> <u>Forest and Project</u>	<u>PAOT</u> <u>Capacity</u>	<u>Cost</u>	<u>Projected</u> <u>Visitor-</u> <u>Day Use</u>
<u>Alabama</u>			
National Forests (Houston boat ramp) ...	100	\$17,000	5,500 (I)
National Forests (Payne Lake water system)	890	17,000	42,200 (A)
<u>Alaska</u>			
Tongass (Prince of Wales road sanitary facilities) .....	100	25,000	21,000 (I)
<u>Arkansas</u>			
Ozark (Blanchard Campground entrance station) .....	1,455	60,000	100,300 (A)
Ouachita (Shady Lake trailer dump) .....	485	150,000	58,700 (A)
<u>California</u>			
Lassen (Eagle Lake Marina) .....	750	335,000	13,000 (A)
<u>Colorado</u>			
San Isabel (Twin Lakes Visitor Center) .	50	6,000	1,000 (I)
San Isabel (Turquoise Lake) .....	125	52,000	7,000 (I)
White River (Green Mountain Reservoir) .	200	80,000	60,000 (A)
<u>Georgia</u>			
National Forests (Rabun Beach water system)	735	67,000	35,800 (A)
National Forests (The Pocket water system)	170	28,000	9,000 (A)
National Forests (Chattooga River Recreation Area) .....	100	18,000	5,000 (I)
<u>Idaho</u>			
Challis (Boundary Creek-Dagger Creek boat ramp) .....	208	37,000	3,000 (I)
Salmon (Cash Creek Bar boat ramp) .....	30	60,000	4,000 (I)
Sawtooth (North Fork Headquarters - Sawtooth NRA) .....	50	715,000	3,000 (I)
<u>Illinois</u>			
Shawnee (Cedar Lake South Bay Campground planning) .....	- -	46,000	- -
<u>Indiana</u>			
Hoosier (Lake Celina Campground completion and Indian Lake boat ramp) .....	285	165,000	18,000 (I)
<u>Kentucky</u>			
Daniel Boone (Laurel Reservoir Marina utilities) .....	- -	278,000	- -
<u>Michigan</u>			
Hiawatha (Round Island lighthouse restoration) .....	- -	112,000	- -
Huron-Manistee (Bowman Bridge Campground)	200	72,000	10,000 (I)
Ottawa (Black River Harbor Campground) .	1,210	200,000	54,000 (A)
<u>Mississippi</u>			
National Forests (Turkey Fork Day Use Area)	255	95,000	5,000 (I)
National Forests (Big Biloxi water system)	50	35,000	10,200 (A)





EXHIBIT I -- RECREATION USE -- FY 1977 -- continued

State	PAOT Capacity	Cost	Projected Visitor- Day Use
<u>Forest and Project</u>			
<u>North Carolina</u>			
National Forests (Black Mountain water system) .....	230	\$ 55,000	25,700 (A)
National Forests (5 campgrounds rehabilitation) .....	540	26,000	30,000 (A)
National Forests (North Mills River) .	385	30,000	17,600 (A)
National Forests (Chattooga River Recreation Area) .....	40	12,000	3,000 (I)
<u>Oregon</u>			
Deschutes (campground barriers) .....	605	20,000	73,500 (A)
Mount Hood (Timberline Lodge) .....	3,000	83,000	130,000 (A)
Mount Baker-Snoqualmie (Heather Meadows)	3,000	19,000	52,100 (A)
Mount Baker-Snoqualmie (conversion to vault toilets) .....	1,355	123,000	74,800 (A)
Mount Baker-Snoqualmie (Stevens Pass trailhead) .....	250	63,000	10,000 (I)
<u>Pennsylvania</u>			
Allegheny (Recreation site rehabilitation)	2,940	50,000	500,000 (A)
Allegheny (Sugar Bay facility design)	- -	50,000	- -
<u>Puerto Rico</u>			
Caribbean (recreation facility planning)	- -	70,000	- -
<u>South Carolina</u>			
National Forests (Chattooga River Recreation Area) .....	65	15,000	10,000 (I)
National Forests (Buckhall Seawall) ..	185	130,000	17,700 (A)
<u>South Dakota</u>			
Black Hills (4 developed site water systems)	335	22,000	125,000 (A)
<u>Utah</u>			
Ashley (Flaming Gorge Visitor Center)	25	84,000	3,500 (A)
<u>Virginia</u>			
George Washington (North River Campground)	60	24,000	10,800 (A)
George Washington (Sherando water system)	1,285	15,000	129,900 (A)
George Washington (North River picnic site)	145	12,000	700 (A)
George Washington (Bubbling Spring water system) .....	25	12,000	4,700 (A)
<u>West Virginia</u>			
Monongahela (Spruce Knob environmental impact statement) .....	- -	25,000	- -
<u>Wisconsin</u>			
Chequamegon (recreation site rehabilitation)	145	25,000	8,000 (A)
Chequamegon (Perch Lake and Fanny Lake Campground) .....	40	7,000	1,000 (I)
Nicolet (Laura Lake Campground) .....	55	12,000	3,000 (I)
Nicolet (Boulder Lake Campground) ....	130	85,000	8,500 (I)
.....	150	- -	10,000 (A)
<u>Wyoming</u>			
Bighorn (Greybull Office Indian Museum)	20	1,000	200 (I)
TOTAL .....	22,458	3,740,000	118,200 (I)
			1,597,200 (A)

PAOT -- Persons-at-one-time  
 (A) -- Affected--no increase  
 (I) -- Increased use



EXHIBIT II - WEEKS ACT PURCHASES 1975-1977  
(dollars in thousands)

	FY 1975		FY 1976		Transition Quarter		FY 1977	
	Options accepted	Acres	Obligation	Options to be accepted	Acres	Obligation	Options to be accepted	Acres
Alabama .....	7	930	\$126.1	2	80	\$20.0	15	1,000
Arkansas .....								\$194.4
Illinois .....	3	688	128.5	11	870	134.3	12	625
Indiana .....	5	190	39.9	8	700	70.0	7	725
Kentucky .....	16	1,129	85.4	48	10,326	899.1	39	7,000
Michigan .....	11	184	29.8	14	775	70.0	11	1,230
Minnesota .....	4	223	21.3	6	300	16.0	9	725
Missouri .....	4	319	41.8	10	550	70.0	3	270
Nebraska .....	1	100	23.0	1	420	50.0		35.0
New Hampshire .....	2	128	19.1	4	645	94.3	1	50
North Carolina .....				1	34	9.5		10.0
Ohio .....	21	2,005	220.1	16	1,033	111.6	23	780
South Carolina .....	1	2	0.8	1	60	8.0		130.0
Vermont .....							1	250
Virginia .....				6	284	77.4		50.0
West Virginia .....	1	1	0.6	3	390	70.6	2	80
Wisconsin .....	1	200	25.0	3	310	18.0	12	820
Subtotal .....	77	6,099	761.4	143	17,377	1,818.8	32	2,280
						425.0	135	13,555
								1,434.2
Surveys and related acquisition costs ....			217.3			319.0		
Unobligated balance carried forward .....			612.8					305.8
Unobligated balance brought forward			-10.5			-612.8		
Total Appropriation .			1,581.0			1,525.0		502.0
								1,740.0



# CONSTRUCTION AND LAND ACQUISITION

## Proposed Change in Activity Structure

Present Structure	:	Proposed Structure
	:	
(1) Forest land management construction:	:	(1) Forest land management construction:
(a) Development of recreation-public use areas	:	(a) Recreation use areas
(b) Water resource development construction	:	(b) Construction for fire, administration, and other purposes
(c) Construction for fire, administration, and other purposes	:	
	:	

It is proposed that the separate activity, water resource development construction, be combined with development of recreation-public use areas, since it is considered a part of recreation use areas for management purposes.



## DEPARTMENT OF AGRICULTURE

## FOREST SERVICE

## CONSTRUCTION AND LAND ACQUISITION

## Program and Financing (in thousands of dollars)

STANDARD FORM 300-T  
June 1973, Office of Management and Budget  
Circular No. A-11, Revised.

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-1103-0-1-302				
<u>Program by activities:</u>				
1. Forest land management construction .....	7,497	10,100	5,272	5,763
2. Research construction .....	4,181	4,170	3,000	204
3. Pollution abatement .....	23,896	17,909	13,050	6,016
4. Land acquisition, Weeks Act .....	1,653	1,884	902	1,331
Total direct program ..	37,227	34,063	22,224	13,314
Total reimbursable program .....	65	250	50	250
Total program costs, funded 1/.....	37,292	34,313	22,274	13,564
Change in selected resources (undelivered orders) ...	-11,438	2,386	-11,150	1,100
10 Total obligations .....	25,854	36,699	11,124	14,664
<u>Financing:</u>				
Receipts and reimbursements from:				
11 Federal funds .....	-65	-250	-50	-250
21 Unobligated balance available, start of period ....	-12,767	-18,315	.....	.....
24 Unobligated balance available, end of period .....	18,315	.....	.....	.....
40 Budget authority (appropriation) .....	31,337	18,134	11,074	14,414
<u>Relation of obligations to outlays:</u>				
71 Obligations incurred, net .....	25,789	36,449	11,074	14,414
72 Obligated balance, start of period .....	26,303	13,577	15,726	4,867
74 Obligated balance, end of period .....	-13,577	-15,726	-4,867	-4,722
90 Outlays .....	38,515	34,300	21,933	14,559
1/ Includes capital outlay as follows: 1975, \$24,966 thousand; 1976, \$23,100 thousand; Transition Quarter, \$15,000 thousand; 1977, \$8,000 thousand.				
(Mono cast: 22.18)	(Mono cast: 5.5)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





## DEPARTMENT OF AGRICULTURE

A-11-34b

## FOREST SERVICE

## CONSTRUCTION AND LAND ACQUISITION

**STANDARD FORM 304-T**  
 June 1975, Office of Management and Budget  
 Circular No. A-11, Revised.  
 304-103T

## OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-1103-0-1-302				
FOREST SERVICE--Direct obligations:				
Personnel compensation:				
11.1 Permanent positions.....	6,695	6,020	2,440	4,740
11.3 Positions other than permanent.....	1,746	1,735	800	1,335
11.5 Other personnel compensation.....	181	185	55	125
11.8 -- Special personal-services payments:--				
Total personnel compensation.....	8,622	7,940	3,295	6,200
Personnel benefits:				
12.1 Civilian.....	888	810	345	620
13.0 Benefits for former personnel.....	3	5	.....	.....
21.0 Travel and transportation of persons.....	495	450	190	240
22.0 Transportation of things.....	326	500	215	160
23.0 Rent, communications, and utilities.....	641	510	100	310
24.0 Printing and reproduction.....	31	75	20	15
25.0 Other services.....	5,666	9,761	2,924	2,979
26.0 Supplies and materials.....	905	2,500	400	440
31.0 Equipment.....	958	1,850	250	470
32.0 Lands and structures.....	6,542	12,000	3,340	3,000
33.0 Investments and loans.....	3	.....	.....	.....
41.0 Grants, subsidies, and contributions.....	4	.....	.....	.....
42.0 Insurance claims and indemnities.....	6	.....	.....	.....
43.0 Interest and dividends.....				
44.0 Refunds.....				
Subtotal .....	25,090	36,401	11,079	14,434
95.0 Quarters and subsistence charges	-17	-20	-5	-20
direct				
99.0 Total obligations.....	25,073	36,381	11,074	14,414
(Mono cast: 22.13)	(Mono cast: 5.0)	(Mono cast: 6.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
CONSTRUCTION AND LAND ACQUISITION

A-11-34b

Type also:  
17H M&Z

STANDARD FORM **304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-1103-0-1-302				
FOREST SERVICE--Reimbursable obligations:				
Personnel compensation:				
11.1 Permanent positions.....				
11.3 Positions other than permanent.....				
11.5 Other personnel compensation.....				
11.8 Special personal services payments.....				
Total personnel compensation.....				
Personnel benefits:				
12.1 Civilian.....				
13.0 Benefits for former personnel.....				
21.0 Travel and transportation of persons.....				
22.0 Transportation of things.....				
23.0 Rent, communications, and utilities.....				
24.0 Printing and reproduction.....				
25.0 Other services.....	65	250	50	250
26.0 Supplies and materials.....				
31.0 Equipment.....				
32.0 Lands and structures.....				
33.0 Investments and loans.....				
41.0 Grants, subsidies, and contributions.....				
42.0 Insurance claims and indemnities.....				
43.0 Interest and dividends.....				
44.0 Refunds.....				
.....				
.....				
99.0 Total obligations.. Forest Service	25,138	36,631	11,124	14,664

(Mono cast: 22.13)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
CONSTRUCTION AND LAND ACQUISITION

A-11-34b

Type also:  
17N M&22

**STANDARD FORM 304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-1103-0-1-302				
GENERAL SERVICES ADMINISTRATION				
<del>Personnel compensation:</del>				
<del>11.1 Permanent positions</del>				
<del>11.3 Positions other than permanent</del>				
<del>11.5 Other personnel compensation</del>				
<del>11.8 Special personal services payments</del>				
<del>Total personnel compensation</del>				
<del>Personnel benefits:</del>				
<del>12.1 Civilian</del>				
<del>13.0 Benefits for former personnel</del>				
21.0 Travel and transportation of persons	3	4	.....	.....
<del>22.0 Transportation of things</del>				
<del>23.0 Rent, communications, and utilities</del>				
<del>24.0 Printing and reproduction</del>				
25.0 Other services	18	31	.....	.....
<del>26.0 Supplies and materials</del>				
<del>31.0 Equipment</del>				
32.0 Lands and structures	695	33	.....	.....
<del>33.0 Investments and loans</del>				
<del>41.0 Grants, subsidies, and contributions</del>				
<del>42.0 Insurance claims and indemnities</del>				
<del>43.0 Interest and dividends</del>				
<del>44.0 Refunds</del>				
Total obligations, General Services Administration ...	716	68	.....	.....
99.0 Total obligations	25,854	36,699	11,124	14,664
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



### Personnel Summary

147









# FOREST ROADS AND TRAILS

	Liquidation of Contract Authority	Permanent <sup>1/</sup> full-time positions	Timber Purchaser Road Construction Authorization
Appropriation, 1975 .....	\$124,578,000	4,635	
Appropriation, 1976 .....	112,859,000	4,434	
Appropriation, transition quarter .....	(- -)		
Appropriation, 1977 .....	170,104,000	4,434	\$200,000,000
Change from 1976 .....	<u>+57,245,000</u>	<u>- -</u>	<u>+200,000,000</u>

## PROJECT STATEMENT

The following tabulation reflects the total program for the construction and maintenance of roads and trails on the National Forests and Grasslands by combining the funds available under the appropriation "Forest roads and trails" with the permanent appropriation of 10 percent of National Forest receipts. It also includes funds that represent purchasers' costs for the roads they build under the provisions of the timber sale contract. These purchaser-constructed roads are included in the budget in 1977 for the first time pursuant to the provisions of section 9 of the Forest and Rangeland Renewable Resources Planning Act.

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
1. Construction of:					
roads and trails:					
(capital invest-					
ment) .....	\$111,265,908	\$131,628,468	\$36,130,000	\$117,723,000	-\$13,905,468
2. Maintenance of:					
roads and trails:					
(operation and					
maintenance) ...	46,405,624	43,344,000	16,200,000	52,381,000	+9,037,000
Timber purchasers:					
Construction of					
roads (capital					
investment) ....	- -	- -	- -	200,000,000	+200,000,000
Total obliga-					
tions .....	157,671,532	174,972,468	52,330,000	370,104,000	+195,131,532
Transfer from					
Roads and Trails					
for States .....	-47,003,064	-35,908,943	-46,900,000	-14,250,000	+21,658,943
Program under					
Forest Roads and					
Trails:					
Contract Author-					
ity .....	110,668,468	139,063,525	5,430,000	155,854,000	+16,790,475
Timber purchas-					
ers authority :	- -	- -	- -	200,000,000	+200,000,000
Obligations incur-					
red under unfund-					
contract author-					
ity .....	13,909,532	-26,204,525	-5,430,000	14,250,000	+40,454,525
Liquidation of con-					
tract authority :	124,578,000	112,859,000	- -	170,104,000	+57,245,000
Timber purchaser					
road construc-					
tion authori-					
zation .....	- -	- -	- -	200,000,000	+200,000,000

<sup>1/</sup> Excludes following positions in the Department of Transportation that receives funds from the Forest Service: 1975, 3; 1976, 3; 1977, 3.



The annual appropriation language and the Department presentation combine the appropriation for Forest roads and trails made pursuant to 23 USC 205 and the appropriation of 10 percent of forest receipts for construction and maintenance of roads and trails pursuant to 16 USC 501. This merger of funds is made in order to simplify the programing, allotment, and accounting of funds at the field level.

An increase of \$57,245,000 is proposed to meet cash requirements for liquidation of contract authority. This appropriation provides for the liquidation of obligations incurred for the construction and maintenance of forest roads and trails pursuant to the authority contained in the Federal-Aid Highway Act. An appropriation of \$170.1 million for 1977 is required to:

- (1) Pay for obligations of the prior years which will be due for payment in fiscal year 1977.
- (2) Pay the portion of the 1977 obligations of \$155.9 million contract authority which will require cash payment in that year.

No change in Forest Service permanent full-time positions is proposed.

#### Status of Unfunded Authorizations

Unfunded contract authority beginning of 1976 .....	\$439,570,000
Appropriation, 1976 .....	-112,859,000
Total unfunded beginning of 1977 .....	326,711,000
1977 Budget estimate (cash requirements) .....	-170,104,000
Balance to remain unfunded as of September 30, 1977.....	156,607,000

#### Analysis of Cash Requirements

1. Unliquidated obligations, June 30, 1975 .....	47,441,019
2. Estimated cash requirements to finance 1976 program .....	91,009,432
3. Total cash requirements by June 30, 1976 .....	138,450,451
4. Less cash on hand 1976: Balance from 1975 ..... 25,591,451	
Appropriation, 1976 ..... 112,859,000	138,450,451
5. Obligations in transition quarter and prior years for which cash was not provided .....	45,424,000
6. Estimated cash required to finance 1977 program ..... a/	124,680,000
7. Total cash required in 1977 .....	170,104,000

a/ An estimated 80 percent of the \$155,854,000 new obligations will require cash payments during the fiscal year.

#### Timber Purchaser Road Construction Authority (\$200,000,000)

Provision is also made for budget authority to carry out item (2) of 16 USC 535. This is in accordance with section 9 of PL 93-378 (August 17, 1974) and definitions in section 3(a) of PL 93-344 (July 12, 1974). The above provisions relate to forest development road construction and reconstruction as negotiated in timber sale contracts. These roads are those required within a timber sale area specifically for the removal of the timber, but which will remain on the national forest development road system for resource management purposes after the timber sale contract is completed.

It is estimated that the value of roads to be constructed by timber purchasers in timber sale contracts awarded in fiscal year 1977 will be \$200,000,000.



GOAL: Most of the uses of the National Forests require varied methods of transportation. Although most forest roads and trails fulfill many needs, specific demands require transportation facilities to meet the specific needs outlined below:

Timber                   - Protection and salvage of timber susceptible to, or damaged by, fire, insects, and diseases

                          - Intensive cultural treatment to increase growth, yield, and quality

                          - Reforestation of suitable timber-producing lands

                          - Harvesting and movement of commercial timber

Forage                   - Distribution and management of livestock

                          - Increase utilization of available forage

                          - Rehabilitation of rangelands

Land and Water       - Development, stabilization, and maintenance of water supplies

                          - Restoration of disturbed and eroded lands

                          - Orderly and safe use and occupancy of public and private lands

Recreation and       - Use of public and private recreation facilities  
Wilderness

                          - Scenic travel

                          - Visiting wilderness lands and waters

                          - Environmental education

                          - Preservation and awareness of historical and archeological treasures

Minerals and       - Exploration, development, extraction, and movement of minerals  
Energy                   and energy fuels

Wildlife               - Habitat improvement

                          - Establishing, managing, and harvesting fish and wildlife





Following is a summary of three years of road and trail construction and maintenance. A comparison is shown of the work to be undertaken (dollars in thousands) (excludes timber purchaser road construction authorization program).

	FY 1975		FY 1976		Transition quarter		FY 1977		Changes from 1976	
	Miles	Amount	Miles	Amount	Miles	Amount	Miles	Amount	Miles	Amount
Recurrent road maintenance ...	97,043	\$40,817	96,630	\$37,665	96,630	\$12,400	193,000	\$44,300	1/	+\$6,635
Recurrent trail maintenance ..	82,124	5,589	61,400	5,679	30,700	3,800	81,100	8,100	1/	+2,421
Road construction .....	136	6,958	240	17,803	47	1,000	230	15,235	-10	-2,568
Trail construction .....	298	4,188	270	3,112	90	1,200	290	2,900	+20	-212
Location, surveys, plans and supervision (timber roads) ..	8,427	85,162	10,938	93,444	11,000 <sup>2/</sup>	30,000	8,805	91,069	-2,133	-2,375
Augmentation timber purchaser construction .....	350	8,863	430	10,044	80	2,180	459	5,500	+29	-4,544
	No.		No.		No.		No.		No.	
Bridge construction and reconstruction for timber access .....	188	6,095	123	7,225	29	1,750	56	3,000	-67	-4,225
Totals .....		157,672		174,972		52,330		170,104		-4,868

1/ Not available due to change in 1977 in reporting procedures to account for all roads and trails in the Forest Development Road and Trail System regardless of maintenance level.

2/ Field work will be initiated (to some degree) on the total number of miles to be considered over the fiscal years 1977-1978+ sale program.



The following table represents the best estimate of work to be obligated by timber purchasers under new timber sale contracts in fiscal year 1977 (dollars in thousands):

Timber Purchaser Road Construction Authorization Program

	<u>FY 1976 Estimate for Comparability</u>		<u>FY 1977</u>	
Purchaser surveys (miles) .....	1,731	\$4,037	1,166	\$2,544
Purchaser engineering (all) .....	- -	21,332	- -	6,876
Purchaser reconstruction (miles) .....	4,543	67,143	5,236	53,559
Purchaser construction (miles) .....	5,077	128,251	4,750	128,013
Purchaser bridge construction (No.) .....	- -	- -	763	9,008
Total estimate .....		220,763		200,000

Program Direction

The fiscal year 1977 Transportation System Development Program is funded by two methods--direct appropriation of funds and authorization of construction through the timber sale contract. The fiscal year 1977 proposal emphasizes the timber resource demand and regulated Transportation System needs. Access will be developed through timber sale purchaser construction authorization and appropriated fund support activities in preparation for fiscal year 1978 and future sale and harvest activities.

The program proposed provides for:

- (1) Maintenance and operation of the existing roads and trails consistent with National Forest administration, use, and protection required by all ongoing programs and activities.
- (2) Capital investments
  - (a) Miles of new surveys and ongoing design activities for roads for harvesting and moving commercial timber included in new timber sales for 1977, 1978, and the future.
  - (b) Construction engineering and augmentation of roads and bridges committed to construction by past timber sales and public work contracts.
  - (c) New road and bridge construction for direct support recreation developments proposed in fiscal year 1977 budget and/or included in prior year budgets.
  - (d) Continue repair and replacement of bridges which fall below current requirements of safety for highway loadings as identified by inspections under the National Bridge Safety program.
  - (e) Road construction and reconstruction to provide access to, and in advance of implementation of intensive renewable resource management activities with emphasis on timber.
  - (f) Road construction and reconstruction through timber sale contract requirements and timber credit allowances as provided for by PL 88-637, October 13, 1964.
  - (g) Construction of 290 miles of trails.

Trails are an integral part of a National Forest's transportation plan, providing public access and bearing safety requirements in similar fashion to roads described above. Increased emphasis on hiking and backpacking have expanded demand rapidly.

National Trails System development (PL 90-543) will be implemented with the proposed funding. The order of priority will be:

- (1) Projects toward completion of those parts of the Appalachian and Pacific Crest National Scenic Trails within National Forests.
- (2) Candidates for designation as National Recreation Trails.
- (3) Other heavy-use trails not part of the National Trails System.



Maintenance and construction will assist in providing for heavy public recreation travel over previously inadequate and sometimes unsafe heavy-use trails, while protecting soil and watershed and esthetic values in scenic and recreation areas. The additional funding for trails complements and makes possible the increased emphasis in providing dispersed recreation opportunities near the user, and minimum investment to prevent irretrievable deterioration of facility and resource damage.

The following tabulation shows the current status of the Forest Roads and Trails System and project needs:

	<u>Existing Mileage</u>	<u>Estimated Mileage Needing Reconstruction</u>	<u>Estimated Additional Mileage Needed</u>																																			
Forest development roads ....	205,182	145,000	272,000																																			
Forest development trails ...	96,663	45,000	23,625																																			
<u>Construction</u>																																						
	<table><tr><th colspan="4"><u>By the Government</u></th><th colspan="4"><u>By Timber Purchasers</u></th></tr><tr><th><u>FY 1975</u></th><th><u>FY 1976</u></th><th><u>Trans. quarter</u></th><th><u>FY 1977</u></th><th><u>FY 1975</u></th><th><u>FY 1976</u></th><th><u>Trans. quarter</u></th><th><u>FY 1977</u></th></tr><tr><td>Roads (miles)</td><td>136</td><td>240</td><td>47</td><td>230</td><td>8,427</td><td>9,620</td><td>4,500</td><td>9,986</td></tr><tr><td>Trails (miles)</td><td>298</td><td>270</td><td>90</td><td>290</td><td>- -</td><td>- -</td><td>- -</td><td>- -</td></tr></table>				<u>By the Government</u>				<u>By Timber Purchasers</u>				<u>FY 1975</u>	<u>FY 1976</u>	<u>Trans. quarter</u>	<u>FY 1977</u>	<u>FY 1975</u>	<u>FY 1976</u>	<u>Trans. quarter</u>	<u>FY 1977</u>	Roads (miles)	136	240	47	230	8,427	9,620	4,500	9,986	Trails (miles)	298	270	90	290	- -	- -	- -	- -
<u>By the Government</u>				<u>By Timber Purchasers</u>																																		
<u>FY 1975</u>	<u>FY 1976</u>	<u>Trans. quarter</u>	<u>FY 1977</u>	<u>FY 1975</u>	<u>FY 1976</u>	<u>Trans. quarter</u>	<u>FY 1977</u>																															
Roads (miles)	136	240	47	230	8,427	9,620	4,500	9,986																														
Trails (miles)	298	270	90	290	- -	- -	- -	- -																														



## GEOGRAPHIC BREAKDOWN OF OBLIGATIONS

## Forest Roads and Trails

	<u>FY 1975</u>	<u>FY 1976 estimate</u>	<u>Transition quarter estimate</u>	<u>FY 1977 estimate</u>	<u>Change from 1976</u>
Alabama .....	\$609,593	\$790,000	\$267,000	\$1,020,000	+\$230,000
Alaska .....	6,296,507	7,073,000	709,000	4,856,000	-2,217,000
Arizona .....	4,004,008	4,555,000	1,140,000	4,978,000	+423,000
Arkansas .....	2,106,459	2,915,000	807,000	3,765,000	+850,000
California .....	37,084,799	36,723,468	13,046,000	31,679,000	-5,044,468
Colorado .....	5,724,373	4,865,000	856,000	4,992,000	+127,000
District of					
Columbia .....	3,451,964	4,412,000	1,142,000	4,791,000	+379,000
Florida .....	800,141	688,000	233,000	890,000	+202,000
Georgia .....	819,077	989,000	335,000	1,280,000	+291,000
Idaho .....	14,918,509	21,135,000	6,597,000	21,156,000	+21,000
Illinois .....	326,497	474,000	300,000	450,000	-24,000
Indiana .....	133,897	51,000	37,000	50,000	-1,000
Kansas .....	1,261	-	-	-	-
Kentucky .....	1,371,250	1,047,000	337,000	1,352,000	+305,000
Louisiana .....	823,322	833,000	251,000	1,076,000	+243,000
Maine .....	33,002	48,000	16,000	45,000	-3,000
Michigan .....	1,639,693	1,854,000	1,440,000	1,765,000	-89,000
Minnesota .....	1,472,876	1,452,000	1,264,000	1,383,000	-69,000
Mississippi .....	800,976	1,174,000	323,000	1,516,000	+342,000
Missouri .....	962,386	638,000	354,000	608,000	-30,000
Montana .....	13,408,737	14,325,000	5,675,000	15,222,000	+897,000
Nebraska .....	55,173	48,000	9,000	49,000	+1,000
Nevada .....	640,131	862,000	245,000	795,000	-67,000
New Hampshire ...	669,167	713,000	301,000	680,000	-33,000
New Mexico .....	3,028,848	3,323,000	876,000	3,631,000	+308,000
New York .....	8,656	3,000	4,000	3,000	-
North Carolina ..	926,445	1,428,000	448,000	1,844,000	+416,000
North Dakota ....	86,251	90,000	37,000	95,000	+5,000
Ohio .....	133,897	50,000	16,000	48,000	-2,000
Oklahoma .....	197,992	265,000	83,000	342,000	+77,000
Oregon .....	26,208,559	29,218,000	6,054,000	27,231,000	-1,987,000
Pennsylvania ....	1,149,159	836,000	468,000	796,000	-40,000
Puerto Rico .....	28,970	32,000	11,000	40,000	+8,000
South Carolina ..	687,230	825,000	254,000	1,065,000	+240,000
South Dakota ....	1,720,718	1,600,000	283,000	1,643,000	+43,000
Tennessee .....	627,859	785,000	231,000	1,014,000	+229,000
Texas .....	911,656	1,044,000	336,000	1,348,000	+304,000
Utah .....	2,746,482	3,563,000	1,186,000	3,290,000	-273,000
Vermont .....	477,682	430,000	413,000	406,000	-24,000
Virginia .....	1,093,051	1,240,000	388,000	1,600,000	+360,000
Washington .....	14,462,803	15,586,000	3,307,000	14,526,000	-1,060,000
West Virginia ...	1,193,158	2,064,000	554,000	1,965,000	-99,000
Wisconsin .....	989,132	1,693,000	1,050,000	1,612,000	-81,000
Wyoming .....	2,839,186	3,233,000	647,000	3,207,000	-26,000
Undistributed					
(Timber purchaser					
road construc-					
tion authority)	- -	- -	- -	200,000,000	+200,000,000
Total .....	157,671,532	174,972,468	52,330,000	370,104,000	+195,131,532





Proposed Changes in Language

Change in language is proposed as follows. New language is underscored and deleted matter is enclosed in brackets.

- 2 For expenses necessary for carrying out ..... shall be merged with and made a part of this appropriation: Provided further, That \$200,000,000 is available pursuant to the provisions of section 9 of the Forest and Range-land Renewable Resources Planning Act of 1974 (16 U.S.C. 1601-1610) for the construction of roads by timber purchasers in advance of a determination of payments due pursuant to the Act of March 4, 1907 (16 U.S.C. 499) and the Acts of May 23, 1908 and March 1, 1911 (16 U.S.C. 500).
- 3 [Funds available under the Act of March 4, 1913 (16 U.S.C. 501) during the period July 1, 1976, through September 30, 1976, shall be merged with and made a part of this appropriation and shall be used for expenses necessary for carrying out the provisions of title 23, United States Code, sections 203 and 205, relating to the construction and maintenance of forest development roads and trails, to remain available until expended.]

Change 1 eliminates words which refer to the Federal-Aid Highway Act. This appropriation includes both funds provided for liquidation of contract authority authorized in the Federal-Aid Highway Act and for authority for construction of roads by timber purchasers (see change 2).

Change 2 provides for budget authority to carry out item (2) of 16 U.S.C. 535. This is in accordance with section 9 of PL 93-378 (August 17, 1974) and definitions in section 3(a) of PL 93-344 (July 12, 1974). These provisions relate to forest development road construction and reconstruction as negotiated in timber sale contracts. These roads are those required within a timber sale area specifically for the removal of the timber, but which will remain on the National Forest Development Road System for resource management purposes after the timber sale contract is completed. The value of timber purchaser road construction will be deducted from timber sale receipts before determining payments to States and counties pursuant to the Acts of May 23, 1908 and March 1, 1911 (16 U.S.C. 500).

Change 3 deletes authority needed to continue activities during the transition period July 1 through September 30, 1976.



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-32a

STANDARD FORM **300-T** FOREST ROADS AND TRAILS  
June 1973, Office of Management and Budget  
Circular No. A-11, Revised. Program and Financing (in thousands of dollars)

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-2262-0-1-302				
<u>Program by activities:</u>				
Direct program				
1. Construction of roads and trails ..	111,505	115,837	63,130	326,497
2. Maintenance of roads and trails ..	49,447	43,500	16,200	52,300
Total direct program	160,952	159,337	79,330	378,797
Reimbursable program				
1. Construction of roads and trails ..	176	700	175	700
2. Maintenance of roads and trails ..	127	300	75	300
Total reimbursable program .....	303	1,000	250	1,000
Total program costs, funded 1/.....	161,255	160,337	79,580	379,797
Change in selected resources (undelivered orders) .....	-3,280	15,635	-27,000	-8,693
10 Total obligations .....	157,975	175,972	52,580	371,104
<u>Financing:</u>				
Receipts and reimbursements from:				
11 Federal funds .....	-47,256	-36,809	-47,050	-15,150
14 Non-Federal sources ..	-50	-100	-100	-100
21.49 Unobligated balance available, start of period: Contract authority ...	-450,000	-417,720	-278,657	-273,227
24.49 Unobligated balance available, end of period: Contract authority ...	417,720	278,657	273,227	117,373
Budget authority .....	78,389	.....	.....	200,000
(Memo cost: 22.12)	(Memo cost: 5.9)	(Memo cost: 5.9)	(Memo cost: 5.9)	(Memo cost: 5) 156



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-32a

STANDARD FORM 300-T

FOREST ROADS AND TRAILS

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)--continued

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-2262-0-1-302				
<u>Budget authority:</u>				
Current:				
40    Appropriation .....	124,578	112,859	.....	370,104
40.49    Portion applied to liquidate contract authority .....	-124,578	-112,859	.....	-170,104
43    Appropriation (adjusted) .....	.....	.....	.....	200,000
49.11    Contract authority rescinded (23 U.S.C. A104) .....	-61,611	.....	.....	.....
Permanent:				
69 <u>Contract authority</u> (23 U.S.C. 203) .....	140,000	.....	.....	.....
Relation of obligations to outlays:				
71    Obligations incurred, net	110,669	139,063	5,430	355,854
Obligated balance, start of period:				
72.40    Appropriation .....	15,558	25,591	.....	.....
72.49    Contract authority .....	35,759	21,850	48,054	53,484
Obligated balance, end of period:				
74.40    Appropriation .....	-25,591	.....	.....	-161,400
74.49    Contract authority .....	-21,850	-48,054	-53,484	-39,234
90    Outlays .....	114,545	138,450	.....	208,704

1/ Includes capital outlay as follows: 1975, \$73,561 thousand; 1976, \$75,000 thousand; Transition Quarter, \$35,000 thousand; 1977, \$265,000 thousand.



**A-11-38**

June 1978, Office of Management and Budget  
Circular No. A-11, Revised.

Status of Unfunded Contract Authority (in thousands of dollars)

158





DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
FOREST ROADS AND TRAILS

A-11-34b

Type size:  
178 M/22

STANDARD FORM 304-T  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-2262-0-1-302				
FOREST SERVICE--Direct obligations:				
Personnel compensation:				
11.1 Permanent positions.....	58,367	62,600	16,595	60,155
11.3 Positions other than permanent.....	25,292	26,975	8,225	26,565
11.5 Other personnel compensation.....	2,146	2,150	770	2,080
11.8 Special personal services payments.....	6	.....	.....	.....
Total personnel compensation.....	85,811	91,725	25,590	88,800
Personnel benefits:				
12.1 Civilian.....	9,230	9,900	2,580	9,590
13.0 Benefits for former personnel.....	16	5	.....	.....
21.0 Travel and transportation of persons.....	3,830	3,900	1,155	4,070
22.0 Transportation of things.....	6,660	7,850	2,170	7,080
23.0 Rent, communications, and utilities.....	4,976	5,800	1,175	5,300
24.0 Printing and reproduction.....	489	575	125	520
25.0 Other services.....	21,157	25,093	10,770	26,714
26.0 Supplies and materials.....	7,609	8,950	2,500	8,800
31.0 Equipment.....	2,717	3,200	775	3,000
32.0 Lands and structures.....	14,755	17,500	5,500	15,700
<del>33.0 Investments and loans.....</del>				
<del>41.0 Grants, subsidies, and contributions.....</del>				
42.0 Insurance claims and indemnities.....	76	75	25	80
<del>43.0 Interest and dividends.....</del>				
44.0 Refunds.....	36	40	.....	.....
Subtotal direct obligations.....	157,362	174,613	52,365	169,654
95.0 Quarters and subsistence charges.....	-277	-270	-85	-300
<del>99.0</del> direct Total obligations.....	157,085	174,343	52,280	169,354
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
FOREST ROADS AND TRAILS

A-11-34b

Type size:  
178 M4/22

STANDARD FORM 304-T  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	75 19 actual	76 19 estimate	Transition Quarter estimate	77 19 estimate
05-96-2262-0-1-302				
FOREST SERVICE--Reimbursable obligations:				
Personnel compensation:				
11.1 Permanent positions.....	133	285	105	285
11.3 Positions other than permanent.....	47	105	25	105
11.5 Other personnel compensation.....	2	5	5	5
<del>11.8 Special personal services payments.....</del>				
Total personnel compensation.....	182	395	135	395
Personnel benefits:				
12.1 Civilian.....	17	35	15	35
<del>12.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	11	25	10	25
22.0 Transportation of things.....	10	20	10	20
23.0 Rent, communications, and utilities.....	4	10	5	10
<del>24.0 Printing and reproduction.....</del>				
25.0 Other services.....	56	120	50	120
26.0 Supplies and materials.....	5	15	15	15
31.0 Equipment.....	18	20	10	20
32.0 Lands and structures.....	.....	360	.....	360
<del>33.0 Investments and loans.....</del>				
<del>41.0 Grants, subsidies, and contributions.....</del>				
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
reimbursable				
99.0 Total obligations.....	303	1,000	250	1,000
Total obligations, Forest Service	157,388	175,343	52,530	170,354
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
FOREST ROADS AND TRAILS

A-11-34b

Type size:  
178 M/22

**STANDARD FORM 304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-2262-0-1-302				
DEPARTMENT OF TRANSPORTATION				
Personnel compensation:				
11.1 Permanent positions.....	40	41	10	42
11.3 Positions other than permanent.....	5	6	1	6
11.5 Other personnel compensation.....	6	6	1	6
<del>11.8 Special personal services payments.....</del>				
Total personnel compensation.....	51	53	12	54
Personnel benefits:				
12.1 Civilian.....	1	5	1	5
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	10	12	3	12
22.0 Transportation of things.....	3	3	1	3
23.0 Rent, communications, and utilities.....	1	1	1	1
24.0 Printing and reproduction.....	1	1	1	1
25.0 Other services.....	63	72	18	72
26.0 Supplies and materials.....	1	1	1	1
<del>31.0 Equipment.....</del>				
32.0 Lands and structures.....	456	481	12	601
Total obligations, Department of Transportation	587	629	50	750
TIMBER PURCHASER CREDITS:				
25.0 Other services .....	.....	.....	.....	200,000
.....				
.....				
99.0 Total obligations.....	157,975	175,972	52,580	371,104
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



A-11-34b

### Personnel Summary

162









ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS  
(All capital investment)

Appropriation, 1975 .....	\$161,000
Estimate, 1976 .....	161,000
Appropriation, transition quarter .....	(- -)
Estimate, 1977 .....	160,000
Change from 1976 .....	<u>-1,000</u>

PROJECT STATEMENT

Project	1975	1976 estimate	1977 estimate	Change from 1976
1. Cache National Forest, Utah, Act of 5/11/38, as amended .....	\$19,979	\$20,000	\$20,000	- -
2. Uinta-Wasatch National Forests, Utah, Act of 8/26/35, as amended .....	25,720	30,000	30,000	- -
3. Toiyabe National Forest, Nevada, Act of 6/25/38, as amended .....	10,000	10,000	10,000	- -
4. Angeles National Forest, California, Act of 6/11/40 .....	18,975	20,000	20,000	- -
5. San Bernardino and Cleveland National Forests, California, Act of 6/15/38 ..	80,388	81,000	80,000	-\$1,000
Unobligated balance reverted to National Forests Fund .....	5,938	- -	- -	- -
Appropriation or estimate .....	161,000	161,000	160,000	-1,000

The Congress has enacted several special laws which authorize appropriation from the receipts of specified National Forests for the purchase of lands to minimize erosion and flood damage. Amounts appropriated and laws under which authorized are shown above.

These are critical watershed lands needing soil stabilization and vegetative cover restoration to prevent serious erosion and damaging floods within these National Forests. Land treatment measures must be applied and subsequently maintained on all lands in these areas to make corrective action fully effective. To assure full program effectiveness, the intermingled private lands must be acquired by the Federal Government. The results will be reflected in improved watershed conditions, social benefits, and development of economic strength in local communities.

The counties in southern California have recognized the benefits that these acquisition programs have produced. They are very interested in having these critical watershed lands protected by being in public ownership. At the present, damages to these lands are occurring which can only result in future expenditures of public funds for rehabilitation and public safety at costs greatly exceeding current land acquisition costs.

Cache National Forest. In fiscal year 1975, funds were available from two sources for the purchase of lands within the Cache National Forest in Utah.

1. The Receipts Act of May 11, 1938, as amended - \$20,000. .
2. The Act of July 24, 1956 -- \$200,000 was appropriated under this authority in fiscal years 1957 through 1960.



These funds are used to acquire key tracts of land in the steep, rough, and highly important watershed areas lying north of the Ogden River along the Wasatch front and on Wellesville Mountain of the Cache National Forest. These are rugged mountain lands above the river valley which have been damaged and their watershed functions impaired through forest fires or overgrazing. This contributes to excessive rainfall runoff causing severe erosion. The damaged watershed lands are potential sources of floods and mudrock flows. Many tracts of land are located in the north fork of Ogden River and on the drainage of Pineview Reservoir, a Federal reclamation project. Others are within the watersheds of the city of Ogden and the other small towns along the Wasatch front. Public ownership of these lands and subsequent restoration and protection of their vegetative cover is a highly important part of a vigorous cooperative program with the local community and agencies.

The appropriation of \$20,000 under the Act of May 11, 1938, is from receipts of the Cache National Forest. In the absence of this appropriation, the State of Utah would receive 25 percent of these receipts for roads and school purposes in the local counties involved. Therefore, the local counties, in effect, are contributing one-fourth of the amount of this appropriation. These appropriations are extremely important to the continuation of a vital and worthwhile program extending almost thirty years and shared in by both the local agencies and the Federal Government through the National Forests.

The 1956 Act requires that expenditures of Federal funds be matched by contributions by local agencies or people. This requirement has been met through donations of money and lands valued at \$200,000.

Through fiscal year 1975, 29,396 acres have been approved for purchase pursuant to the Receipts Act of 1938, and 15,957 acres under the Special Act of 1956. The 1976 objective is to acquire 80 additional acres of these critical watershed lands. A similar acreage is expected to be acquired in 1977.

Uinta-Wasatch. In fiscal years 1963 through 1975, an appropriation of \$270,000 was made under the Uinta-Wasatch Receipts Act of August 26, 1935, for acquiring critical watershed lands in the American Fork Canyon watershed. A total of 2,962 acres has been approved for purchase through fiscal year 1975, and an estimated 100 acres will be acquired each year during 1976 and 1977.

Toiyabe National Forest. \$10,000 was appropriated under this Act in fiscal year 1975 and \$10,000 in 1976. The 1976 and 1977 objective is to acquire 40 acres each year.

Angeles National Forest. \$20,000 was appropriated in fiscal year 1975, \$20,000 in 1976, and \$20,000 is proposed in 1977 to purchase important watershed lands. Acquisition is needed to minimize erosion and flood damage. The 1976 objective is to acquire 80 acres. The 1977 objective is to acquire 100 acres.

San Bernardino and Cleveland National Forests. The \$80,000 proposed for fiscal year 1977 is to acquire 300 acres of important watershed lands. Acquisition is needed to minimize erosion and flood damage.

No permanent full-time positions are assigned to this appropriation.



ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

Proposed Change in Language

Change in language is proposed as follows. Deleted matter is enclosed in brackets.

For acquisition of land to facilitate the control of soil erosion and ..... Cleveland National Forests, California, Act of June 15, 1938 (52 Stat. 699), as amended, ..... [:Provided, That no part of this appropriation shall be used for acquisition of any land which is not within the boundaries of the national forests and/or for the acquisition of any land without the approval of the local government concerned].

This change would eliminate the restriction of local government approval for land acquisition and authority for purchase of land which is included in applicable legislative acts. Congress eliminated this restriction in fiscal year 1967 as it applied to the Act of March 1, 1911 (Weeks Act).

The present language makes it possible for a local government or official to estop purchase of tracts of land. While the special acts do not require local government concurrence, they are closely involved. The lands being acquired are steep with highly erosive soils. Much of the impetus leading to enactment of the various acts was generated by the local governments due to repeated damaging floods and mudslides. The Forest Service works closely with the local government in these areas and makes them aware of proposed acquisitions. If they object, every effort is made to resolve their concerns before the case is consummated.





DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-32a

STANDARD FORM 300-1 ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised. Program and Financing (in thousands of dollars)

Identification code	1975 actual	1976 estimate	1977 estimate	1977 estimate
05-96-5208-0-2-302				
<u>Program by activities:</u>				
1. Cache National Forest, Utah .....	20	20	.....	20
2. Uinta and Wasatch National Forests, Utah	26	30	.....	30
3. Toiyabe National Forest, Nevada ....	10	10	.....	10
4. Angeles National Forest, California	13	20	.....	20
5. San Bernardino and Cleveland National Forests, California	88	81	.....	80
Total program costs, funded 1/.....	157	161	.....	160
Change in selected resources (undelivered orders) ...	-2	.....	.....	.....
10 Total obligations .....	155	161	.....	160
<u>Financing:</u>				
25 Unobligated balance lapsing	7	.....	.....	.....
40 Budget authority (appro- priation) (special fund)	161	161	.....	160
<u>Relation of obligations to outlays:</u>				
71 Obligations incurred, net	155	161	.....	160
72 Obligated balance, start of period .....	68	68	68	.....
74 Obligated balance, end of period .....	-68	-68	.....	-50
77 Adjustments in expired accounts .....	1	.....	.....	.....
90 Outlays .....	155	161	68	110
1/ Includes capital outlay as follows: 1975, \$151 thousand; 1976, \$155 thousand; Transition Period, \$0; 1977, \$155 thousand.				
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



FOREST SERVICE  
ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

STANDARD FORM 300-T ACQUISITION  
June 1971, Office of Management and Budget  
Circular No. A-11, Revised. Amount

Amounts Available for Appropriation (in thousands of dollars)

Identification code	1975 actual	1976 estimate	1977 TQ estimate	1978 estimate
Receipts .....	154	161	.....	160
Unobligated balance returned to unappropriated receipts .....	7	.....	.....	.....
Total available for appro- priation .....	161	161	.....	160
Appropriation .....	-161	-161	.....	-160
Unappropriated balance, end of period .....	.....	.....	.....	.....

(Mono cast: 22.18)

(Mean cost: 8.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 8)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-34a

Type also:  
178 M6/22

**STANDARD FORM 304-T** ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-5208-0-2-302				
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	5	.....	.....	.....
11.3 <del>Positions other than permanent.....</del>				
11.5 <del>Other personnel compensation.....</del>				
11.8 <del>Special personal services payments.....</del>				
Total personnel compensation.....	5	.....	.....	.....
<b>Personnel benefits:</b>				
12.1 Civilian.....	1	.....	.....	.....
13.0 Benefits for former personnel.....				
21.0 Travel and transportation of persons.....				
22.0 Transportation of things.....				
23.0 Rent, communications, and utilities.....				
24.0 Printing and reproduction.....				
25.0 Other services.....	3	.....	.....	.....
26.0 Supplies and materials.....				
31.0 Equipment.....				
32.0 Lands and structures.....	146	161	.....	160
33.0 Investments and loans.....				
41.0 Grants, subsidies, and contributions.....				
42.0 Insurance claims and indemnities.....				
43.0 Interest and dividends.....				
44.0 Refunds.....				
.....				
.....				
99.0 Total obligations.....	155	161	.....	160
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



A-11-34a

ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

June 1978, Office of Management and Budget  
Circular No. A-11, Revised.

## Personnel Summary

<b>Identification code</b>	<b>1975 actual</b>	<b>1976 estimate</b>	<b>1970 estimate</b>	<b>1977 estimate</b>
05-96-S208-0-2-302				
Total number of permanent positions	0	0		0
Full-time equivalent of other positions .....	0	0		0
Average paid employment .....	0	0		0
(Mono cast: 22.18)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES  
(All capital investment)

Appropriation, 1975 .....	\$39,310
Estimate, 1976 .....	35,000
Appropriation, transition quarter .....	(- -)
1977 .....	54,000
Change from 1976 .....	<u>+19,000</u>

PROJECT STATEMENT

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
Purchase of land, State of:					
California .....	\$12,000	\$33,145	- -	\$45,600	+\$12,455
Montana .....	- -	750	- -	- -	-750
Georgia .....	- -	16,250	- -	- -	-16,250
Oklahoma .....	- -	4,500	- -	- -	-4,500
South Carolina .....	- -	2,410	- -	- -	-2,410
Wisconsin .....	- -	14,590	- -	410	-14,180
Minnesota .....	- -	18,000	- -	- -	-18,000
Virginia .....	- -	- -	- -	7,785	+7,785
Unobligated balance brought forward	-27,335	-54,645	- -	- -	+54,645
Unobligated balance carried forward	54,645	- -	- -	205	+205
Appropriation or estimate .....	39,310	35,000	- -	54,000	+19,000

It is estimated that 130 acres of land will be acquired in fiscal year 1976, and 170 acres in fiscal year 1977.



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-32a

STANDARD FORM 300-7

ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

June 1973, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)

Identification code	1975 actual	1976 estimate	1977 estimate	1978 estimate
05-96-5216-0-2-302				
<u>Program by activities:</u>				
Acquisition of land:				
1. California .....	40	33	.....	46
2. Georgia .....	.....	16	.....	.....
3. Minnesota .....	.....	18	.....	.....
4. Montana .....	.....	1	.....	.....
5. Oklahoma .....	.....	5	.....	.....
6. South Carolina ...	.....	2	.....	.....
7. Wisconsin .....	.....	15	.....	.....
8. Virginia .....	.....	.....	.....	8
Total program costs, funded 1/ .....	40	90	.....	54
Change in selected resources (undelivered orders) .....	-28	.....	.....	.....
10 Total obligations (object class 32.0) .....	12	90	.....	54
<u>Financing:</u>				
21 Unobligated balance avail- able, start of period .	-27	-55	.....	.....
24 Unobligated balance avail- able, end of period ...	55	.....	.....	.....
40 <u>Budget authority (appro- priation (special fund)</u>	39	35	.....	54
<u>Relation of obligations to outlays:</u>				
71 Obligations incurred, net	12	90	.....	54
72 Obligated balance, start of period .....	28	.....	.....	.....
74 Obligated balance, end of period .....	.....	.....	.....	.....
90 Outlays .....	40	90	.....	54
1/ Includes capital outlay as follows: 1975, \$40 thousand; 1976, \$90 thousand; Transition Quarter; \$0, 1977, \$54 thousand.				
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



A-11-38

**STANDARD FORM 300-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised. Amount

## Amounts Available for Appropriation (in thousands of dollars)

<b>Identification code</b>	<b>75 actual</b>	<b>76 estimate</b>	<b>TQ estimate</b>	<b>77 estimate</b>
<b>Unappropriated balance, start of period .....</b>	<b>56</b>	<b>89</b>	<b>54</b>	<b>54</b>
<b>Receipts .....</b>	<b>72</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>
<b>Total available for appropriation .....</b>	<b>128</b>	<b>89</b>	<b>54 .</b>	<b>54</b>
<b>Appropriation .....</b>	<b>-39</b>	<b>-35</b>	<b>.....</b>	<b>-54</b>
<b>Unappropriated balance, end of period .....</b>	<b>89</b>	<b>54</b>	<b>54</b>	<b>.....</b>

(Mono cast: 22.18)
(Mono cast: 5.9)
(Mono cast: 5.9)
(Mono cast: 5.9)
(Mono cast: 5)









ASSISTANCE TO STATES FOR TREE PLANTING  
(All capital investment)

		<u>Permanent full-time positions</u>
1975 .....	\$1,355,000	19
1976 .....	1,359,000	13
Transition quarter .....	(829,000)	
1977 .....	1,373,000	13
Change from 1976 .....	<u>+14,000</u>	<u>- -</u>

PROJECT STATEMENT

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
Assistance to States for tree planting .....	\$1,338,489	\$1,399,017	\$829,000	\$1,373,000	-\$26,017
Unobligated balance brought forward .....	-23,506	-40,017	- -	- -	+40,017
Unobligated balance carried forward .....	40,017	- -	- -	- -	- -
Appropriation or estimate .	<u>1,355,000</u>	<u>1,359,000</u>	<u>829,000</u>	<u>1,373,000</u>	<u>+14,000</u>

An increase of \$14,000 is proposed to provide for the costs of the pay increase effective in October 1975 (Executive Order 11883).

No change in permanent full-time positions is proposed.

The program authorized under Section 401 of the Agricultural Act of 1956 (16 USC 568e) provides assistance to States in their forestation and tree improvement projects. Rehabilitation of State and county forest lands and production of improved tree seedlings has been carried out under this program.

New and expanded tree improvement projects which are partially or totally funded under this program are underway in 43 States. Nationally, the States expend three times more than they receive under this program for tree improvement.

Assistance will emphasize seed orchard establishment aimed at the production of improved genetic quality tree seed. Reforestation work will be carried out to restore low-yielding or non-productive forest lands to fuller production of commercial wood. In addition, attendant benefits include:

- (1) Erosion control.
- (2) Wildlife habitat improvement.
- (3) Expanded recreational land use potentials.
- (4) Environmental enhancement.

Examples of Recent Accomplishments

Field grafting for disease resistant orchards was continued on a large scale in 1975 in South Carolina. 507 longleaf and 878 loblolly pine grafts were made. The States' 5-acre orchard for disease resistant (fusiform rust) loblolly pine and the 5-acre orchard of the Piedmont loblolly disease resistant orchard were completed.

The Alabama Tree Improvement Program now has a total of 211 acres of pine seed orchards. At Geneva State Forest, the longleaf seed orchard was expanded by five acres to a total of 20 acres and pine seed orchards now total 65 acres.



Current plans call for a 60 acre, 100 clone loblolly seed orchard expansion. Timber was cut from the orchard site and site preparation is now in progress. Grafts for filling 20 acres of this expansion were made during the past grafting season and will be transplanted this winter.

Arkansas, loblolly seed orchards produced 90 pounds of seed, producing about one million improved seedling. Twelve more acres of loblolly pine seed orchard were established. Another 20 acres is being prepared for expansion of the loblolly pine seed orchards.

Illinois has established, thus far, a total of 165 acres of seed production areas for 5 conifers and 5 deciduous species. A test of helicopter pollination was conducted which resulted in 50 percent higher seed yield.

In Minnesota, some 4,600 acres of State and 528 acres of county forest land were reforested with about 4 million seedlings. In addition, some 800 acres were direct seeded. Species planted were pine and spruce.

In Louisiana a little more than 200 acres of loblolly and slash pine seed orchard have been established with 2,000 grafted scions. Another 60 acres are being prepared for expansion toward an ultimate goal of 300 acres of pine seed orchard.

North Carolina expanded its seed orchards with 20 acres longleaf pine. Hardwood clone banks were established for northern red oak, southern red oak, white oak, chestnut oak, green ash, sweet gum, sugar maple, and black cherry.



## GEOGRAPHIC BREAKDOWN OF APPROPRIATION

Assistance to States for Tree Planting  
(in thousands)

	<u>1975 actual</u>	<u>1976 estimate</u>	<u>Transition quarter estimate</u>	<u>1977 estimate</u>
Alabama .....	\$65	\$65	\$18	\$65
Arizona .....	- -	.7	- -	.7
Arkansas .....	15	15	5	15
California .....	23	23	7	23
Colorado .....	7	7	3	7
Connecticut .....	6	6	2.5	6
Florida .....	39	39	11	39
Georgia .....	53	53	15	53
Guam .....	4	10	3.5	10
Hawaii .....	38	38	9.5	38
Idaho .....	16	16	5	16
Illinois .....	10	10	3.5	10
Indiana .....	12	12	4	12
Iowa .....	8	8	3	8
Kansas .....	19	19	6	19
Kentucky .....	17	17	5.5	17
Louisiana .....	42	42	11.5	42
Maine .....	5	5	2.5	5
Maryland .....	20	20	6	20
Massachusetts .....	1	1	1	1
Michigan .....	25	25	8	25
Minnesota .....	18	18	5.5	18
Mississippi .....	41	41	12	41
Missouri .....	30	30	8.5	30
Montana .....	15	15	5	15
Nebraska .....	8	8	3.5	8
New Hampshire .....	8	8	3.5	8
New Jersey .....	10	10	3.5	10
New Mexico .....	- -	.7	- -	.7
New York .....	15	15	5	15
North Carolina .....	54	54	15	54
Ohio .....	10	10	3.5	10
Oklahoma .....	16	16	5	16
Oregon .....	46	46	12.5	46
Pennsylvania .....	30	30	8.5	30
South Carolina .....	28	28	8	28
South Dakota .....	- -	- -	3.5	10
Tennessee .....	33	30	9.5	33
Texas .....	56	56	15	56
Vermont .....	6	6	2.5	6
Virginia .....	57	57	16	57
Washington .....	50	50	13.5	50
West Virginia .....	5	5	2.5	5
Wisconsin .....	12	12	4	12
Wyoming .....	10	12	4	12
Special projects (Reserve) .....	42	- -	400	- -
Subtotal .....	1,025	989.4	700	1,002.4
Forest Service administration and technical assistance .....	330	369.6	129	370.6
Total .....	1,355	1,359	829	1,373



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-32a

STANDARD FORM 300-T

ASSISTANCE TO STATES FOR TREE PLANTING

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)

Identification code		19 75 actual	19 76 estimate	19 TQ estimate	19 77 estimate
05-96-1101-0-1-302					
<u>Program by activities:</u>					
Tree planting assistance (program costs, funded) 1/.....		1,339	1,399	1,079	1,123
Change in selected resources (undelivered orders) ..		-1	.....	-250	250
10	Total obligations ....	1,338	1,399	829	1,373
<u>Financing:</u>					
21	Unobligated balance avail- able, start of period .	-24	-40	.....	.....
24	Unobligated balance avail- able, end of period ...	40	.....	.....	.....
40	<u>Budget authority (appro- priation) .....</u>	1,355	1,359	829	1,373
<u>Relation of obligations to outlays:</u>					
71	Obligations incurred, net	1,338	1,399	829	1,373
72	Obligated balance, start of period .....	477	527	526	300
74	Obligated balance, end of period .....	-527	-526	-300	-457
90	Outlays .....	1,288	1,400	1,055	1,216
1/ Includes capital outlay as follows: 1975, \$1 thousand; 1976, \$5 thousand; Transition Quarter, \$1 thousand, 1977, \$ 5 thousand.					
(Mono cast: 22.13)		(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-34a

ASSISTANCE TO STATES FOR TREE PLANTING

**STANDARD FORM 304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-1101-0-1-302				
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	242	232	96	235
11.3 Positions other than permanent.....	11	18	8	20
<del>11.5 Other personnel compensation.....</del>				
<del>11.8 Special personal services payments.....</del>				
<b>Total personnel compensation.....</b>	<b>253</b>	<b>250</b>	<b>104</b>	<b>255</b>
<b>Personnel benefits:</b>				
12.1 Civilian.....	24	28	12	28
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	28	31	20	25
22.0 Transportation of things.....	2	2	2	5
23.0 Rent, communications, and utilities.....	11	11	4	15
24.0 Printing and reproduction.....	10	10	6	15
25.0 Other services.....	2	7	31	32
26.0 Supplies and materials.....	54	55	10	93
31.0 Equipment.....	4	5	.....	5
<del>32.0 Lands and structures.....</del>				
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	950	1,000	640	900
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
99.0 Total obligations.....	1,338	1,399	829	1,373

(Mono cast: 22.18)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5)



A-11-34a

**STANDARD FORM 300-T**  
June 1972, Office of Management and Budget  
Circular No. A-11, Revised.

## Personnel Summary

<b>Identification code</b>	<b>1975 actual</b>	<b>1976 estimate</b>	<b>19 TQ estimate</b>	<b>1977 estimate</b>
05-96-1101-0-1-302				
Total number of permanent positions	19	13		13
Full-time equivalent of other positions .....	2	3		3
Average paid employment .....	15	16		16
Average GS grade .....	8.63	8.64		8.64
Average GS salary .....	\$15,149	\$15,947		\$15,947
Average salary of ungraded positions .....	\$12,261	\$13,008		\$13,008
(Mono cast: 22.18)	(Mono cast: 8.9)	(Mono cast: 8.9)	(Mono cast: 5.9)	(Mono cast: 5)







# CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

(All operation and maintenance)

		Permanent full-time positions
Appropriation, 1975 .....	\$1,260,000	42
Estimate, 1976 .....	3,674,000	95
Appropriation, transition quarter .....	(2,212,000)	
Estimate, 1977 .....	2,475,000	95
Change from 1976 .....	<u>-1,199,000</u>	<u>- -</u>

## PROJECT STATEMENT

Project	1975	1976 estimate	Transition quarter estimate	1977 estimate	Change from 1976
Construction and operation of recreation facilities .....	\$1,271,611	\$2,937,840	\$2,930,000	\$2,475,000	-\$462,840
Unobligated balance brought forward .....	-69,451	-57,840	- -	- -	+57,840
Unobligated balance carried forward .....	57,840	- -	- -	- -	- -
Unavailable balance in prior year brought forward .....	- -	- -	-794,000	-76,000	-76,000
Unavailable balance carried forward .....	- -	794,000	76,000	76,000	-718,000
Appropriation or estimate .....	1,260,000	3,674,000	2,212,000	2,475,000	-1,199,000

GOAL: Improve the operation and maintenance of National Forest System recreation facilities, particularly those near the user and those associated with nationally significant resources.

No change in permanent full-time positions is proposed for the decreased program level of \$462,840.

About 1,800 of the 6,400 National Forest System sites will be under the charge program.

These are a relatively small portion of the total funds available for recreation programs. In other parts of the budget there are proposals for increases that substantially offset this decrease.

These are funds proposed for appropriation from admission and user fees collected under the Land and Water Conservation Fund Act of 1965, as amended (78 Stat. 897; 16 USC 4601-5; PL 93-81, 8/1/73). They will be used to operate and maintain recreation facilities on the National Forest System, including law and regulation enforcement to assure visitor safety and reduce vandalism. These funds allow operation and maintenance standards to be sustained.





## FOREST SERVICE

## CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

STANDARD FORM **300-T**  
 June 1975, Office of Management and Budget  
 Circular No. A-11, Revised.

## Program and Financing (in thousands of dollars)

Identification code		19 75 actual	19 76 estimate	19 76 estimate	19 77 estimate
05-96-5009-0-2-302					
<u>Program by activities:</u>					
Construction, reconstruction, administration, operation, and maintenance of recrea- tion facilities (program costs, funded) 1/ .....		1,603	2,888	2,930	2,475
Change in selected resources (undelivered orders) ..		-331	50	.....	.....
10	Total obligations ....	1,272	2,938	2,930	2,475
<u>Financing:</u>					
21	Unobligated balance avail- able, start of period .	-69	-58	-794	-76
24	Unobligated balance avail- able, end of period ...	58	794	76	76
40	<u>Budget authority (appro- priation) (indefinite special fund) .....</u>	1,260	3,674	2,212	2,475
<u>Relation of obligations to outlays:</u>					
71	Obligations incurred, net	1,272	2,938	2,930	2,475
72	Obligated balance, start of period .....	828	249	402	402
74	Obligated balance, end of period .....	-249	-402	-402	-377
90	Outlays .....	1,851	2,785	2,930	2,500
1/ Includes capital outlay as follows: 1975, \$311 thousand; 1976, \$575 thousand; Transition Quarter, \$575 thousand; 1977, \$500 thousand.					
(Mono cast: 22.13)		(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



A-11-38

## CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

Amounts Available for Appropriation (in thousands of dollars)

181



## DEPARTMENT OF AGRICULTURE

A-11-34a

## FOREST SERVICE

## STANDARD FORM 304-T CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

Type size:  
178 M&22June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

## OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-5009-0-2-302				
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	451	1,125	655	1,075
11.3 Positions other than permanent.....	306	700	560	645
11.5 Other personnel compensation.....	17	35	35	30
<del>11.8 Special personal services payments.....</del>				
<b>Total personnel compensation.....</b>	<b>774</b>	<b>1,860</b>	<b>1,250</b>	<b>1,750</b>
<b>Personnel benefits:</b>				
12.1 Civilian.....	76	180	120	175
13.0 Benefits for former personnel.....	1	1	.....	.....
21.0 Travel and transportation of persons.....	17	55	40	30
22.0 Transportation of things.....	53	175	100	70
23.0 Rent, communications, and utilities.....	57	60	50	75
24.0 Printing and reproduction.....				
25.0 Other services.....	113	119	450	140
26.0 Supplies and materials.....	130	400	825	170
31.0 Equipment.....	19	25	25	25
32.0 Lands and structures.....	38	75	75	50
<del>33.0 Investments and loans.....</del>				
<del>41.0 Grants, subsidies, and contributions.....</del>				
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
<b>Subtotal .....</b>	<b>1,278</b>	<b>2,950</b>	<b>2,935</b>	<b>2,485</b>
95.0 Quarters and subsistence charges.....	-6	-12	-5	-10
<b>99.0 Total obligations.....</b>	<b>1,272</b>	<b>2,938</b>	<b>2,930</b>	<b>2,475</b>
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



**STANDARD FORM 300-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

Identification code	75 actual	76 estimate	TQ estimate	77 estimate
05-96-5009-0-2-302				
Total number of permanent positions	42	95		95
Full-time equivalent of other positions .....	41	83		64
Average paid employment .....	75	165		135
Average GS grade .....	8.63	8.64		8.64
Average GS salary .....	\$15,149	\$15,947		\$15,947
Average salary of ungraded positions .....	\$12,261	\$13,008		\$13,008
(Mono cast: 22.11)	(Mono cast: 5.0)	(Mono cast: 5.0)	(Mono cast: 5.0)	(Mono cast: 5)









# YOUTH CONSERVATION CORPS

For budgetary purposes, the entire appropriation is shown under the Forest Service. However, that portion of the appropriation allocated for the State grant program and one-half of the appropriation allocated for the Federal program is transferred to the Department of the Interior.

1/  
Permanent  
full-time  
positions

Appropriation, 1975 .....	\$10,392,000	44
Appropriation, 1976 .....	35,000,000	53
Appropriation, transition quarter .....	( - - )	
Estimate, 1977 .....	- -	53
Change from 1976 .....	<u>-35,000,000</u>	<u>- -</u>

## PROJECT STATEMENT

Project	:	:	Transition	:	:	Change
	:	1976	quarter	:	1977	from
	:	estimate	estimate	:	estimate	1976
Youth Conservation Corps .....	:	:	:	:	:	:
	:	:	:	:	:	:
Unobligated balance	:	:	:	:	:	:
brought forward ....	:	:	:	:	:	:
Unobligated balance	:	:	:	:	:	:
carried forward ....	:	:	:	:	:	:
Unobligated balance	:	:	:	:	:	:
lapsing .....	:	:	:	:	:	:
Total appropriation	:	:	:	:	:	:
or estimate 1/ .....	:	:	:	:	:	:

A decrease of \$35 million in appropriation (new budget authority) is proposed due to budget constraints. However, of the \$35 million appropriated in fiscal year 1976, \$3 million was spent in the summer of calendar year 1975 and the programs proposed are as follows:

Summer of CY 1975 (FY 1975 and continuing resolution) .....	\$13.4 million
Summer of CY 1976 (FY 1976 and transition quarter) .....	16 million
Summer of CY 1977 (FY 1977) .....	16 million

No change in permanent full-time positions is proposed.

GOAL: To provide gainful summer employment for young men and women in conservation work and offer a broad variety of educational experiences to them as they learn ways to improve the quality and productivity of land, air, and water.

The Act of August 13, 1970 (84 Stat. 794), as amended, authorizes the Youth Conservation Corps Program on Federal lands and a grant program to assist States in establishing YCC projects on non-Federal public lands. The Departments of the Interior and Agriculture jointly administer the program.

The primary purposes of the program are to:

- (1) Provide gainful employment to 15 through 18 year old youths representing all segments of society.
- (2) Further development and maintenance of the natural resources of the United States by the youth, upon whom will fall the ultimate responsibility for maintaining and managing these resources for the American people.

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1/ Includes allocation to Department of the Interior: 1975, \$6,586,000; 1976, \$8,094,000; transition quarter, \$3,840,000; 1977, \$10,350,000. Excludes following positions in Interior: 1975, 8; 1976, 51; 1977, 51.



- (3) Develop an understanding and appreciation in Corps participants of the Nation's natural environment and heritage.

This integrated conservation work, learn, and employment program is designed to accomplish needed conservation work, provide employment and income to youth, teach proper work habits, encourage greater appreciation of the management of natural resources, and increase individual pride and dignity. Conservation work-learn projects on public lands include recreation facilities maintenance and construction, range and wildlife habitat improvement, timber stand improvement, trail improvement and construction, and visitor information services. Recruiting guidelines have been established to meet the mandate of the Congress that there be a representative mix of youth from all economic, social, and racial backgrounds. We have been able to enroll approximately three percent of the young people who apply.

Evaluation of the Federal YCC programs in 1971, 1972, 1973, and 1974 by Department personnel and the University of Michigan's Institute for Social Research indicates that the purposes of the Act were achieved. With \$13 million provided for the 1975 summer program, the approximately 12,000 young men and women employed accomplished conservation work appraised at a value of over \$10.4 million. They also found significant gains in environmental education.



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
YOUTH CONSERVATION CORPS

A-11-32a

STANDARD FORM 300-T

June 1973, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	19 TQ estimate	19 77 estimate
05-96-1125-0-1-302				
<u>Program by activities:</u>				
Program development (program costs, funded) 1/	9,958	14,471	12,180	16,000
Change in selected resources (undelivered orders).....	338	1,257	-4,500	.....
10 Total obligations .....	10,296	15,728	7,680	16,000
<u>Financing:</u>				
21 Unobligated balance avail- able, start of period ...	-4,330	-4,408	-23,680	-16,000
24 Unobligated balance avail- able, end of period .....	4,408	23,680	16,000	.....
25 Unobligated balance lapsing	18	.....	.....	.....
Budget authority (appropriation) .....	10,392	35,000	.....	.....
<u>Relation of obligations to outlays:</u>				
71 Obligations incurred, net	10,296	15,728	7,680	16,000
72 Obligated balance, start of period .....	3,706	4,142	4,370	1,050
74 Obligated balance, end of period .....	-4,142	-4,370	-1,050	-1,050
90 Outlays .....	9,859	15,500	11,000	16,000
.....				
1/ Includes capital outlay as follows: 1975, \$30 thousand; 1976, \$50 thousand; Transition Quarter, \$5 thousand; 1977, \$50 thousand.				
(Mono cast: 22.15)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
YOUTH CONSERVATION CORPS

**STANDARD FORM 304-T**  
June 1973, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

Type else:  
17N M6/22

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-1125-0-1-302				
FOREST SERVICE				
Personnel compensation:				
11.1 Permanent positions.....	618	535	435	545
11.3 Positions other than permanent.....	700	570	505	585
11.5 Other personnel compensation.....	43	30	20	30
11.8 Special personal services payments.....	944	1,890	1,215	1,940
Total personnel compensation.....	2,305	3,025	2,175	3,100
Personnel benefits:				
12.1 Civilian.....	179	130	110	135
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	91	80	60	80
22.0 Transportation of things.....	127	90	45	90
23.0 Rent, communications, and utilities.....	112	80	45	85
24.0 Printing and reproduction.....	23	10	10	10
25.0 Other services.....	627	1,377	953	1,408
26.0 Supplies and materials.....	344	660	395	680
31.0 Equipment.....	52	40	30	40
32.0 Lands and structures.....	3	2	2	2
33.0 Investments and loans.....	23	30	25	30
41.0 Grants, subsidies, and contributions.....	-4	.....	.....	.....
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
Subtotal .....	3,882	5,524	3,850	5,660
95.0 Quarters and subsistence charges	-19	-10	-10	-10
99.0 Total obligations, Forest Service	3,863	5,514	3,840	5,650
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
YOUTH CONSERVATION CORPS

A-11-34b

Type also:  
17N M&22

**STANDARD FORM 304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-1125-0-1-302				
DEPARTMENT OF THE INTERIOR				
Personnel compensation:				
11.1 Permanent positions.....	72	600	420	615
11.3 Positions other than permanent.....	548	860	600	885
<del>11.5 Other personnel compensation.....</del>				
<del>11.8 Special personal services payments.....</del>				
Total personnel compensation.....	620	1,460	1,020	1,500
Personnel benefits:				
12.1 Civilian.....	40	145	100	150
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	197	215	150	220
22.0 Transportation of things.....	37	40	30	40
23.0 Rent, communications, and utilities.....	22	25	20	25
24.0 Printing and reproduction.....	8	10	10	10
25.0 Other services.....	2,525	3,229	2,250	3,310
26.0 Supplies and materials.....	275	300	200	305
31.0 Equipment.....	83	90	60	90
<del>32.0 Lands and structures.....</del>				
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	2,626	4,700	.....	4,700
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
Total obligations, Department of the Interior.....	6,433	10,214	3,840	10,350
99.0 Total obligations.....	10,296	15,728	7,680	16,000
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



**STANDARD FORM 300-T**  
June 1978, Office of Management and Budget  
Circular No. A-11, Revised.

189









ACQUISITION OF LANDS FOR UINTA NATIONAL FOREST  
(All capital investment)

PROJECT STATEMENT

Project	1975	Transition:		
		1976	quarter	1977
		estimate	estimate	estimate
Acquisition of lands for Uinta National Forest .....	\$71:	\$67,514:	- -	- -
Unobligated balance brought forward .....	-67,585:	-67,514:	- -	- -
Unobligated balance carried forward .....	67,514:	- -	- -	- -
Appropriation or estimate .....	- -	- -	- -	- -

Public Law 89-226 authorized the purchase of approximately 10,000 acres of non-Federally owned land within a described part of the Uinta National Forest in Utah for the purpose of promoting the control of floods and the reduction of soil erosion through restoration of adequate vegetative cover. \$300,000 were appropriated in fiscal year 1967.

As of June 30, 1975, 9,395 acres have been acquired at a cost of \$232,486.



ACQUISITION OF LANDS FOR WASATCH NATIONAL FOREST  
(All capital investment)

PROJECT STATEMENT

Project	1975	estimate	Transition:		
			1976	quarter	1977
			estimate	estimate	estimate
Acquisition of lands for Wasatch National Forest .....	\$1,810:	\$215,255:	- -	:	- -
Unobligated balance brought forward .....	-217,065:	-215,255:	- -	:	- -
Unobligated balance carried forward .....	215,255:	- -	- -	:	- -
Appropriation or estimate .....	- -	- -	- -	:	- -

The Act of September 14, 1962 (PL 87-661) provided authorization for the appropriation of \$400,000 for purchase of privately owned lands within the Wasatch National Forest in Utah to aid in control of floods and to reduce soil erosion. The full amount of this authorization has been appropriated with the funds remaining available until expended.

As of June 30, 1975, approximately 12,900 acres had been approved for purchase under this authority.



ACQUISITION OF LANDS FOR SUPERIOR NATIONAL FOREST  
(All capital investment)

PROJECT STATEMENT

Project	1975	Transition:		
		1976	quarter	1977
		estimate	estimate	estimate
Acquisition of lands for Superior National Forest .....	\$16,970:	- -	- -	- -
Unobligated balance brought forward .....	-253:	\$16,717:	- -	- -
Unobligated balance carried forward .....	-16,717:	- -	- -	- -
Appropriation or estimate .....	- -	1/ 16,717:	- -	- -

The Act of June 22, 1948 (PL 80-733) as amended, provided authorization for the appropriation of \$4.5 million for the purchase of lands and improvements thereon in the Boundary Waters Canoe Area, Superior National Forest, Minnesota. The full amount of this authorization has been appropriated.

1/ This is the amount due for land acquisition in the Boundary Waters Canoe area. The condemnation award occurred at the time when obligations under the Act were close to the limit of appropriations. The award exceeded the amount reserved for payment and the funds remaining within the authorization limit by \$16,717.33. On August 11, 1975, the Department of Agriculture recommended to the Congress that legislation be introduced to authorize use of Land and Water Conservation funds to carry out the Act of June 22, 1948, including payment of court judgments in condemnation action.

Explanation of this unfinanced obligation was sent to the President, the Speaker of the House of Representatives, and the President of the Senate on November 7, 1975, as required by Section 3679 of the Revised Statutes.



ACQUISITION OF LANDS FOR CACHE NATIONAL FOREST  
(All capital investment)

PROJECT STATEMENT

Project	1975	1976	Transition:	
			quarter	1977
		estimate	estimate	estimate
Acquisition of lands for Cache National Forest .....	- -	- -	- -	- -
Unobligated balance brought forward .....	-\$10,649	-\$10,649	- -	- -
Unobligated balance carried forward .....	10,649	- -	- -	- -
Unobligated balance lapsing .....	- -	10,649	- -	- -
Appropriation or estimate .....	- -	- -	- -	- -

The 1956 Appropriation Act provided \$200,000 for the acquisition of lands in the Cache National Forest pursuant to the Act of July 24, 1956 (70 Stat. 632). Obligations under this fund are in addition to the appropriation from National Forest receipts authorized by the Act of May 11, 1938, and provided in the appropriation, Acquisition of Lands for National Forests, Special Acts. Under the 1956 Act, funds appropriated must be matched by contribution of funds or land by local agencies or persons. Explanation of this program and the accomplishments thereunder are included under the appropriation, Acquisition of lands for national forests, special acts.





ACQUISITION OF LANDS, KLAMATH INDIANS  
(All capital investment)

Appropriation, 1975 .....	\$49,000,000
Appropriation, 1976 .....	- -
Appropriation, transition quarter .....	( - - )
Estimate, 1977 .....	- -

PROJECT STATEMENT

	:	:	:	:	:	Transition:
Project	:	1975	:	1976	:	quarter : 1977
	:	:	:	estimate:	:	estimate : estimate
Purchase of lands, Klamath Indians .....	:	\$49,000,000:	-	-	:	- - : - -
Appropriation or estimate .....	:	49,000,000:	-	-	:	- - : - -

In fiscal year 1961, \$68,717,000 was appropriated for the purchase of 525,679 acres of Klamath Indian forest lands which were offered for sale to private parties before the Secretary of Agriculture took title. The remaining members of the Tribe entered into a trust management agreement with the United States National Bank of Oregon which provided for management of the remaining Klamath Indian forest lands. In May 1969 these members elected to terminate the trust.

Funds were appropriated in fiscal year 1975 to carry out the directive in PL 93-102 of August 16, 1973, that the Secretary of Agriculture acquire by condemnation all of the Klamath Indian forest lands the trustee is required to sell. On October 31, 1974, a Declaration of Taking was signed involving 134,961 acres and the estimated compensation of \$49,000,000 was deposited in Federal Court.



STANDARD FORM 300-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.FOREST SERVICE  
OTHER GENERAL FUNDS

## Program and Financing (in thousands of dollars)

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-9998-0-1-302				
Program by activities:				
1. Acquisition of lands for Uinta National Forest, Utah ....	7	68	.....	.....
2. Acquisition of lands for Wasatch National Forest, Utah ....	2	215	.....	.....
3. Acquisition of lands for Superior National Forest, Minnesota	17	-17	.....	.....
4. Acquisition of lands, Klamath Indians .	49,000	.....	.....	.....
Total program costs, funded 1/ .....	49,026	266	.....	.....
Change in selected resources (unde- livered orders)	-7	.....	.....	.....
10 Total obligations .	49,019	266	.....	.....
Financing:				
21 Unobligated balance available, start of period .....	-296	-277	.....	.....
24 Unobligated balance available, end of period .....	277	.....	.....	.....
25 Unobligated balance lapsing .....	.....	11	.....	.....
40 Budget authority (appropriation) ..	49,000	.....	.....	.....
(Mono cast: 22.12)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



## STANDARD FORM 300-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.FOREST SERVICE  
OTHER GENERAL FUNDS

## Program and Financing (in thousands of dollars)--continued

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-9998-0-1-302				
Relation of obligations to outlays:				
71 Obligations incurred, net .....	49,019	266	.....	.....
72 Obligated balance, start of period ....	7	18	.....	.....
74 Obligated balance, end of period .....	-18	.....	.....	.....
90 Outlays .....	49,008	284	.....	.....
Distribution of outlays by account:				
Acquisition of lands for Uinta National Forest .....	7	68	.....	.....
Acquisition of lands for Wasatch National Forest .....	1	216	.....	.....
Acquisition of lands, Klamath Indians .....	49,000	.....	.....	.....
1/ Includes capital outlay as follows: 1975, \$49,025 thousand; 1976, \$265 thousand; Transition Quarter, \$0; 1977, \$0.				
(Memo cont: 22.12)	(Memo cont: 5.9)	(Memo cont: 5.9)	(Memo cont: 5.9)	(Memo cont: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
OTHER GENERAL FUNDS

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code 05-96-9998-0-1-302	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	2	.....	.....	.....
<del>11.3 Positions other than permanent.....</del>				
<del>11.5 Other personnel compensation.....</del>				
<del>11.8 Special personal services payments.....</del>				
<b>Total personnel compensation.....</b>	<b>2</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>
<b>Personnel benefits:</b>				
12.1 Civilian.....	.....	.....	.....	.....
<del>13.0 Benefits for former personnel.....</del>				
<del>21.0 Travel and transportation of persons.....</del>				
<del>22.0 Transportation of things.....</del>				
<del>23.0 Rent, communications, and utilities.....</del>				
<del>24.0 Printing and reproduction.....</del>				
<del>25.0 Other services.....</del>				
<del>26.0 Supplies and materials.....</del>				
<del>31.0 Equipment.....</del>				
32.0 Lands and structures.....	49,017	266	.....	.....
<del>33.0 Investments and loans.....</del>				
<del>41.0 Grants, subsidies, and contributions.....</del>				
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
<b>99.0 Total obligations.....</b>	<b>49,019</b>	<b>266</b>	<b>.....</b>	<b>.....</b>
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





**STANDARD FORM 300-T**  
June 1973, Office of Management and Budget  
Circular No. A-11, Revised.

### OTHER GENERAL FUNDS

## Personnel Summary

<u>Identification code</u>	<u>1975 actual</u>	<u>1976 estimate</u>	<u>Transition Quarter estimate</u>	<u>1977 estimate</u>
05-96-9998-0-1-302				
Total number of permanent positions .....	0	0		0
Full-time equivalent of other positions .....	0	0		0
Average paid employment .....	0	0		0
(Memo cost: \$3.15)	(Memo cost: \$4.9)	(Memo cost: \$4.9)	(Memo cost: \$4.9)	(Memo cost: \$)



## FOREST SERVICE

## CONSOLIDATED WORKING FUND

STANDARD FORM 300-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

## Program and Financing (in thousands of dollars)

Identification code 05-96-3911-0-4-302	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
<u>Program by activities:</u>				
1. Services for other Federal agencies .	1,913	3,652	325	1,300
2. Forest research at experimental forests and ranges and for foreign countries	19	264	10	.....
3. Older Americans Com- munity Service (Department of Labor) .....	635	4,644	1,040	3,960
4. National Operation Mainstream program (Department of Labor) .....	2,346	121	.....	.....
5. Job Opportunity program (Department of Commerce) .....	.....	32,886	.....	.....
Total program costs, funded 1/ .....	4,913	41,567	1,375	5,260
Change in selected resources (undelivered orders) .....	-513	-463	-50	40
10 Total obligations .	4,400	41,104	1,325	5,300
<u>Financing:</u>				
Receipts and reimburse- ments from:				
11 Federal funds .....	-18,712	-24,709	-1,325	-5,300
21 Unobligated balance available, start of period .....	-2,082	-16,395	.....	.....
24 Unobligated balance available, end of period .....	16,395	.....	.....	.....
Budget authority ..	.....	.....	.....	.....
(Mono cast: 22.12)	(Mono cast: 5.5)	(Mono cast: 5.0)	(Mono cast: 5.0)	(Mono cast: 5)



## FOREST SERVICE

## CONSOLIDATED WORKING FUND

STANDARD FORM 300-T

June 1974, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-3911-0-4-302		19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
<u>Relation of obligations to outlays:</u>					
71	Obligations incurred, net .....	-14,312	16,395	.....	.....
72	Obligated balance, start of period ....	1,716	1,192	1,725	200
74	Obligated balance, end of period .....	-1,192	-1,725	-200	-200
90	Outlays .....	-13,789	15,862	1,525	.....
1/ Includes capital outlay as follows: 1975, \$3 thousand; 1976, \$25 thousand; Transition Quarter, \$5 thousand; 1977, \$10 thousand.					
(Mono cast: 22.15)		(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
CONSOLIDATED WORKING FUND

A-11-34a

Type size:  
178 M/22

**STANDARD FORM 304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-3911-0-4-302				
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	248	1,595	20	175
11.3 Positions other than permanent.....	2,428	24,150	850	1,435
11.5 Other personnel compensation.....	2	15	.....	.....
11.8 Special personal services payments.....	5	25	.....	5
<b>Total personnel compensation.....</b>	<b>2,683</b>	<b>25,785</b>	<b>870</b>	<b>1,615</b>
<b>Personnel benefits:</b>				
12.1 Civilian.....	173	1,730	50	110
13.0 Benefits for former personnel.....	36	35	5	.....
21.0 Travel and transportation of persons.....	65	500	20	30
22.0 Transportation of things.....	44	700	15	35
23.0 Rent, communications, and utilities.....	16	100	5	10
24.0 Printing and reproduction.....	.....	5	.....	.....
25.0 Other services.....	-534	3,834	205	65
26.0 Supplies and materials.....	29	2,000	130	25
31.0 Equipment.....	13	350	15	10
32.0 Lands and structures.....	.....	65	.....	.....
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	1,876	6,000	10	3,400
<del>42.0 Insurance claims and indemnities.....</del>				
<del>43.0 Interest and dividends.....</del>				
<del>44.0 Refunds.....</del>				
<b>Subtotal.....</b>	<b>4,401</b>	<b>41,104</b>	<b>1,325</b>	<b>5,300</b>
95.0 Quarters and subsistence charges.....	-1	.....	.....	.....
<b>99.0 Total obligations.....</b>	<b>4,400</b>	<b>41,104</b>	<b>1,325</b>	<b>5,300</b>

(Mono cast: 22.13)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5)





A-11-34a

June 1978, Office of Management and Budget  
Circular No. A-11, Revised.

202







## ADMINISTRATIVE PROVISIONS, FOREST SERVICE

### Proposed Changes in Language

Changes in language are proposed as follows. New language is underscored and deleted matter is enclosed in brackets.

- 1 Appropriations to the Forest Service for the current fiscal year [and for the  
period July 1, 1976, through September 30, 1976,] shall be available for:
- 2 (a) purchase of not to exceed two hundred [eighty-one] thirty-two passenger  
3 motor vehicles of which [two] one hundred [twenty-five] fifty-seven shall be  
1 for replacement only, ..... not to exceed \$100,000 [for fiscal year 1976,  
and \$100,000 for the period July 1, 1976, through September 30, 1976,] for  
employment under 5 U.S.C. 3109; ..... for administrative and not to exceed  
1 \$75,000 [for fiscal year 1976, and \$75,000 for the period July 1, 1976,  
through September 30, 1976,] for research purposes, ..... in land or waters,  
4 pursuant to the Act of August 3, 1956 (7 U.S.C. 428a), including expenses  
as may be necessary to complete an exchange of the Blythe Arena and approxi-  
mately 5.3 acres of National Forest land upon which it is situated in the  
north half of the northwest quarter, section 32, township 16 north, range 16  
east, Mount Diablo Meridian, California, together with such additional  
National Forest land as the Forest Service may consider available for exchange:  
Provided, That such appropriation shall not be available for expenses incident  
1 to donations ..... not to exceed \$100,000 [for fiscal year 1976, and \$100,000  
for the period July 1, 1976, through September 30, 1976,] for expenses pursuant  
to the Volunteers .....

- Funds appropriated under this Act shall not be used for acquisition of forest  
lands under the provisions of the Act approved March 1, 1911, as amended  
5 (16 U.S.C. 513-519, 521)[, where such land is not within the boundaries of an  
established national forest or purchase unit].

- 6 [None of the funds made available under this Act shall be obligated or ex-  
pended to change the boundaries of any region, to abolish any region, to  
move or close any regional office for research, State and private forestry,  
and National Forest System administration of the Forest Service, Department  
of Agriculture, without the consent of the House and Senate Committees on  
Appropriations and the Committee on Agriculture and Forestry in the U.S.  
Senate and the Committee on Agriculture in the U.S. House of Representatives.]

- 1 [The period July 1, 1976, through September 30, 1976, inclusive, shall be  
treated as a fiscal year for the purpose of computing and making payments  
provided under provisions of the Acts of May 23, 1908, as amended, March 1,  
1911, as amended (16 U.S.C. 500); March 4, 1913, as amended (16 U.S.C. 501);  
June 20, 1910 (36 Stat. 562, 573); and June 22, 1948, as amended (16 U.S.C.  
577c-577h), except the percent used shall be one-quarter of the three-fourths  
of 1 percent specified in this Act and the period July 1 through September 30,  
1976, shall not be counted as a year in computing the ten-year interval  
between determination of the fair appraised value of the National Forest lands  
involved.]

Change 1 deletes authority needed to continue various activities during the tran-  
sition period of July 1 through September 30, 1976.

Changes 2 and 3 would provide authority to purchase 232 passenger motor vehicles  
of which 157 will be replacements.

### PASSENGER CARRYING VEHICLES

#### Replacements

During fiscal year 1977, it is proposed that the Forest Service replace 157 passen-  
ger carrying vehicles. Of these, 152 will meet replacement standards and five will  
require replacement because of accidents or excessive maintenance costs.



Dependability of passenger carrying vehicles is an important factor in keeping work programs on schedule and in meeting emergencies. Vehicle breakdowns while on field travel cause disruptions and delays in field work as well as loss of effective work time of employees. The continued use of over-aged equipment is undesirable from a safety standpoint since most of it is operated over rough, narrow, winding roads in mountainous country under adverse conditions. This use generally results in excessive operating and repair expenses when vehicles reach or exceed replacement standards.

In order to maintain passenger carrying vehicles in a safe and satisfactory operating condition, it is the policy of the Forest Service to schedule periodic preventive maintenance inspections, services, and tune-ups to reduce the necessity for costly repairs and major overhauls, and to minimize lost time resulting from field breakdowns.

It is desirable to maintain a reasonable balance in the age class of the passenger vehicle inventory. The age class distribution is based upon conforming with replacement standards which recognize that some units will be retired under the age standards and others under the use standard. Prescribed replacement standards, although applicable, are not always appropriate for all Forest Service vehicles because of the wide range of operating conditions and the comparatively short field season in many of the National Forests at higher elevations. Decision on replacement of passenger-carrying vehicles which reach replacement age is based on an appraisal of each unit. This involves a review of the history record combined with a mechanical inspection of the vehicle's condition and repair liability. When such appraisal indicates that the vehicle is satisfactory for further service without unreasonable repair expenditures, it is retained and assigned to lighter work, even though such action tends to upset the age standards for the fleet inventory.

The vehicles selected for replacement are those which cannot be operated another season without excessive repair expense. They are unsatisfactory for further use both as to safety and mechanical condition. The replacement authorization requested is within the normal annual replacement standards prescribed by the General Services Administration.

Essentially all passenger-carrying vehicles are pooled for use by all activities with replacement of pooled units financed from a Working Capital Fund. All appropriations reimburse this fund in ratio to use of vehicles on activities financed by the respective appropriations.

None of the replacements requested will be assigned to areas served or scheduled to be served by Interagency pools.

#### Additions

It is proposed that the Forest Service purchase 75 additional passenger-carrying vehicles to replace pickups, carryalls and sedan deliveries. Since sedans and station wagons are better suited to the needs and are less costly to operate, we prefer replacement with passenger-carrying vehicles.

Sedans or station wagons cost less to operate and maintain than a truck. During fiscal year 1976, the Forest Service is replacing 66 light trucks, such as carryalls, pickups, panels, and sedan delivery trucks, with sedans and station wagons. The total estimated cost savings is \$11,200 per year. The substitution of 75 passenger-carrying vehicles for light trucks in fiscal year 1977 would result in an additional savings of about \$15,000 each year.

The Forest Service analyzes current work plans and program in determining its overall passenger-carrying vehicle requirements. This analysis includes a careful study of the number of vehicles needed at each field station using as a guiding principle the ownership of only the minimum number of dependable units required to serve programs for which funds are budgeted. Also, it is Forest Service policy to utilize Interagency Motor Pools or commercial car rental services to the fullest practicable extent. Passenger car use is restricted and is integrated with various activities so as to attain good utilization of all vehicles.





Additions are financed from program funds in direct relationship to the anticipated use of the equipment. Distribution of costs to appropriations is based on analysis of use of the equipment fleet for the past three years and the estimated use for the budget year.

#### Number of Vehicles

The Forest Service had a fleet of 1,027 passenger-carrying vehicles at the start of the fiscal year 1976. It is planned to add 56 units during the year, making a total of 1,083 units available at the start of fiscal year 1977, excluding possible transfers to other agencies. It is proposed that the total number of passenger-carrying vehicles be increased to 1,158 by the end of fiscal year 1977.

As of June 30, 1975, the age and mileage classes of the passenger-carrying vehicles on hand, exclusive of 29 buses, were:

#### Age Data

<u>Year</u>	<u>Number of Vehicles</u>
1970 and older .....	244
1971 .....	82
1972 .....	64
1973 .....	260
1974 .....	241
1975 .....	<u>107</u>
Total .....	998

#### Mileage Data

<u>Miles</u>	<u>Number of Vehicles</u>
60,000 and over .....	215
50,000 to 59,999 .....	84
40,000 to 49,999 .....	102
30,000 to 39,999 .....	122
20,000 to 29,999 .....	158
10,000 to 19,999 .....	185
0 to 9,999 .....	<u>132</u>
Total .....	998

#### Use of Vehicles

Passenger-carrying vehicles are used by:

- (1) Forest officers in the protection, utilization, management, and development of the National Forests and land utilization projects and in the program for control of forest pests.
- (2) Research technicians on experimental forests, and ranges, on field research projects and forest surveys.
- (3) Foresters engaged in carrying out the laws providing for State and private forestry cooperation.
- (4) Regional office field-going administrative personnel in performing, directing, and inspecting field work.

The Forest Service is essentially a field organization and its passenger-carrying vehicles are located mainly at regional, National Forest, and ranger district headquarters, and experimental forests and ranges. There are over 225 million acres within the exterior boundaries of the National Forest.



About 631 million acres of State and private forest land are included within the areas which benefit from Federal participation in the cooperative forest program. Much of this area is without common carrier service, and most forest areas and research centers are remote from commercial travel routes, requiring extensive use of motor vehicles as a means of transportation. The major portion of transportation needs, particularly at regional and forest supervisor levels and at other larger headquarters, involves multiple passenger use and can be more expeditiously and economically met by use of sedans and station wagons than by other types of vehicles.

## AIRCRAFT

### Replacement of Aircraft

The Forest Service is currently authorized 57 aircraft in accordance with 31 USC 638a(b) which establishes control over size of agency fleet. There will be no need for an increase in authorization for fiscal year 1977. The authorization includes both government-owned and leased aircraft that is operated by the government.

Current Forest Service fleet composition is as follows:

- 6 Single engine reconnaissance and transport aircraft
- 18 Light twin-engine reconnaissance and transport aircraft
- 12 Medium and heavy cargo and transport aircraft (6 medium, 6 heavy)
- 1 Multi-engine aircraft converted to an air tanker
- 37 Government-owned aircraft
- 20 Dry leased aircraft (leased but operated by Forest Service during critical periods)
- 57

The replacement by purchase will be primarily light twin-engine aircraft suitable for leadplane work in directing air tanker retardant dropping attack on forest fires.

One large helicopter is on call from the U.S. Army for use in some equipment development and testing. Such testing may include additional night helicopter operation and fire retardant spray systems.

One light twin-engine airplane is modified, equipped, and used primarily for fire mapping with infrared equipment in low visibility of smoke and at night. Two medium twin-engine airplanes are modified, equipped and used primarily for high altitude fire detection usually at night with infrared equipment.

The multi-engine airplane obtained from the military was converted to air tanker configuration for test and evaluation project to determine if suitable for dropping retardants. It is now being used in a research project on optimum size and shape of tanks for retardant dropping.

The multipurpose reconnaissance and transport airplanes are used primarily to transport smokejumpers, firefighters, administrative personnel, equipment and supplies to remote and inaccessible areas where commercial services are inadequate or not available for protection and suppression of forest fires. Other use is to locate and survey timber stand and vegetation conditions such as insect infestations, blowdown, diseased areas, undesirable species, and to appraise resources and damage and evaluate effectiveness of control.

The services of suitable airplanes to perform specific Forest Service missions are becoming increasingly more difficult to obtain from commercial sources. In some locations only the Forest Service needs certain type of flights and they are insufficient in number to warrant operators furnishing the service. Aviation operators must therefore give first consideration to furnishing services for best revenue. In many instances the aircraft available is not suitable for Forest Service work.



Four heavy twin-engine transport aircraft are leased and operated for dual purpose in transporting firefighting crews or dropping smokejumpers. Seven leased light twins fill additional requirements for leadplanes in directing air tanker retardant attack on fires until the replacement aircraft are available. Three leased helicopters are used for specialized roles in firefighting.

Two single-engine T-28's are on temporary loan from the Navy for evaluation as air tanker leadplanes, especially where faster speed is needed. One OV-10 is borrowed from the Navy for leadplane evaluation. Other military aircraft may be borrowed for similar evaluations for our mission requirements.

Aircraft purchases are financed from either appropriated funds or the Forest Service Working Capital Fund, or a combination of both. Replacement costs of aircraft partially or completely destroyed in an accident are financed from program funds in relationship to anticipated use.

When contract tanker aircraft are used to drop retardant on forest fires, these tankers are directed in the fire vicinity and actually preceded on drop runs by Forest Service pilots flying the leadplanes. The tanker fleet has been evolving into faster and larger aircraft. This further necessitates a change to faster lead aircraft to assure adequate clearance from the tanker while leading them in over the drop area on the fire. A study is presently underway to determine the optimum replacement schedule.

Change 4 would authorize the exchange of National Forest land at Squaw Valley, California, on which the Blythe Arena was constructed with funds appropriated by the Act of May 14, 1958.

The addition of the language underscored to section (g) would authorize the exchange of 5.3 acres of National Forest land at Squaw Valley, California, on which the Blythe Arena was constructed with funds appropriated by the Act of May 14, 1958 (72 Stat. 108). The arena was needed for the 1960 Winter Olympics. No additional funds are requested since funds are included for exchanges under the Act of August 3, 1956 (7 U.S.C. 428a).

It was the intent of the Congress in 1958 that the Federal Government be reimbursed for the money expended in construction of the arena from income derived from the use of the improved lands by the State of California. The Office of General Counsel rendered an opinion on March 31, 1964, concerning a proposed land-for-land exchange under the provisions of the General Exchange Act of March 20, 1922 (42 Stat. 465, 16 U.S.C. 485, 486), and advised the Forest Service that the exchange of the improved site of the arena was not authorized because Congress intended that the United States be reimbursed for the expenditure of the appropriated funds by rentals of the facility by the State of California. The State of California has leased the site since that time and the United States has derived no income because operating costs have exceeded income.

Private owners have acquired nearby State of California lands and are interested in exchanging other lands suitable for National Forest purposes in exchange for the arena site. The proposal to exchange the improved site for other lands more suitable for National Forest purposes will have the effect of reimbursing the United States with land rather than income.

Change 5 would eliminate restriction on location of lands to be acquired.

This language is redundant to what actually occurs under the policies and procedures of the National Forest Reservation Commission. Acquisitions are made only (1) in areas previously approved by the Commission which have been subsequently designated National Forests, (2) in purchase units approved but without National Forest status, or (3) in individual tracts at which time a purchase unit boundary around the tract is concurrently approved along with the acquisition.



Change 6 would eliminate the language to assure that the present Forest Service regional system is maintained and that the Congress has a role in any further regional reorganization plans.

If the Appropriations Committees were to continue to include language in appropriations bills requiring congressional approval of reorganization proposals, our ability to implement needed reorganizations would be considerably slowed.

The Forest Service has made many changes in organization through the years to obtain the most efficient economic operation. These changes came as a result of extensive study and considered improved transportation, technology and methods of doing business. The administration of the National Forest System has been improved as a result of these changes.

This language might limit the ability of Forest Service management to take advantage of opportunities to improve efficiency and effectiveness by shifting Regional boundaries.

It is proposed that this language not be included in future appropriation bills.

The Forest Service plans to obtain the views of the Appropriations Subcommittees and the Agriculture and Forestry Committees in the House and Senate and members of Congress who would be affected before implementing regional reorganization plans even without this language.









ROADS AND TRAILS FOR STATES, NATIONAL FORESTS FUND  
(Permanent appropriation)

Appropriation, 1975 .....	\$47,003,064
Appropriation, 1976 .....	<u>35,908,943</u>
Transition quarter .....	(46,900,000)
Estimate, 1977 .....	<u>14,250,000</u>
Change (due to an estimated decrease in National Forest receipts in transition quarter) .....	<u>-21,658,943</u>

The permanent appropriation of 10 percent of National Forest receipts pursuant to the Act of March 4, 1913 (16 USC 501) is transferred to and merged with the annual appropriation for Forest Roads and Trails. The explanation of the use of these funds is included in the justification for that appropriation item.

The Department of the Interior and Related Agencies Appropriation Act making funds available for the fiscal year ending June 30, 1976 and for the period ending September 30, 1976 (PL 94-165) provided that the period July 1 through September 30, 1976, shall be treated as a fiscal year for the purposes of computing amounts available under the provisions of this Act. Therefore, the funds available during the transition quarter (July 1-September 30, 1976) are based on National Forest receipts for the fiscal year ending June 30, 1976; and the funds available in fiscal year 1977 (October 1, 1976-September 30, 1977) are based on National Forest receipts for the transition quarter.



EXPENSES, BRUSH DISPOSAL  
(Permanent appropriation)  
(All operation and maintenance)

Permanent  
full-time  
positions

Appropriation, 1975 .....	\$24,183,923	501
Estimate, 1976 .....	33,000,000	569
Transition quarter .....	(9,000,000)	
Estimate, 1977 .....	<u>33,000,000</u>	<u>569</u>

PROJECT STATEMENT

Project	1975	1976 estimate	Transition quarter estimate	1977 estimate	Change from 1976
Brush disposal .....	\$25,860,838	\$32,028,000	\$10,000,000	\$29,394,000	-\$2,634,000
Unobligated balance					
brought forward ...	-25,778,027	-24,101,112	-25,073,112	-24,073,112	+28,000
Unobligated balance					
carried forward ...	24,101,112	25,073,112	24,073,112	27,679,112	+2,606,000
Appropriation or					
estimate .....	<u>24,183,923</u>	<u>33,000,000</u>	<u>9,000,000</u>	<u>33,000,000</u>	- -

GOAL: To increase the productivity of forest lands.

A decrease of \$2,634,000 is planned.

No change in permanent full-time positions is proposed.

Timber cutting usually increases the fire hazard because of dry fuel increase in the form of logging slash. This slash may also:

- (1) Impair reforestation.
- (2) Contribute to the buildup of insect populations.
- (3) Cause damage to stream channels.
- (4) Degrade esthetics of the forest environment.

When disposal of brush and other debris is necessary, National Forest timber sale contracts require treatment or deposit of funds for treatment of debris resulting from timber sale operations. When economical and expedient the work is performed by the timber purchaser. When not done by the purchaser, it is done by the Government, using deposits to cover costs of the work as authorized under Section 6 of the Act of April 24, 1950 (16 USC 490).

The effect of timber cutting and the manner of treating slash varies widely among regions. Brush disposal may be accomplished in several ways such as crushing, chipping, burning, or extra fire protection through the critical phase of natural disposal. Combinations of these are often used.

In the Eastern Regions, low volume cut per acre, high utilization, and rapid decomposition reduce the slash disposal work necessary. Exceptions occur in sales where a heavy cut per acre is made, such as the jack pine stands of some Lake States. In such areas, slash is crushed and mixed with mineral soil by disking with heavy equipment or disposed of by burning under prescription. This reduces the hazard and provides a good seedbed to aid regeneration. Treatment of slash to prevent insect epidemics is sometimes necessary in these areas.

In contrast, more slash disposal is required on most sale areas of the West. High volume per acre generally produces heavy slash. Long dry periods with lightning and man-caused fire risk result in extremely hazardous fire potential. The warm, humid conditions necessary for rapid slash deterioration seldom occur. Treatment varies



greatly with different methods of cutting, but generally requires some burning to reduce volumes of slash fuels. Slash may be burned in place or piled and burned under varied weather conditions. Fuel arrangements are planned which allow burning at times when smoke dispersal is favorable and will not influence air quality in population areas. The emphasis on more complete timber utilization will reduce the volumes of slash fuels that will be disposed of by burning.

Within regions, slash disposal follows general prescriptions. Individual needs of each sale are planned and appraised prior to advertisement of the sale. The appropriate specific requirements are incorporated into each timber sale contract. In each instance, the method used will require adequate ecological, environmental, and resource protection at the least expense.





LICENSEE PROGRAMS  
(Permanent appropriation)  
(All operation and maintenance)

Permanent  
full-time  
positions

Appropriation, 1975 .....	\$223,351	4
Estimate, 1976 .....	250,000	3
Estimate, transition quarter .....	(63,000)	(- -)
Estimate, 1977 .....	280,000	3
Change from 1976 .....	+30,000	--

PROJECT STATEMENT

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
Licensee Programs:					
Smokey Bear .....	\$187,687	\$278,000	\$60,000	\$225,000	-\$53,000
Woodsy Owl .....	22,498	50,000	15,000	50,000	- -
Unobligated balance brought forward .....	-217,499	-230,665	-152,665	-140,665	90,000
Unobligated balance carried forward .....	230,665	152,665	140,665	145,665	-7,000
Appropriation or estimate .....	223,351	250,000	63,000	280,000	+30,000

Fees for the use of characters by private enterprises are collected under regulations promulgated by the Secretary and are available as follows:

- (1) Smokey Bear--for furthering the nationwide forest fire prevention campaign (18 USC 711 and 31 USC 488a).
- (2) Woodsy Owl--for promoting wise use of the environment and programs which foster maintenance and improvement of environmental quality (31 USC 488b-3--6).

Examples of Recent Accomplishments

Smokey Bear. National publicity occurred with the changing of the guard ceremonies when the old Smokey Bear retired and passed on his hat and shovel to a new, young, vigorous bear.

Smokey received the Stewart H. Holbrook award presented by the Keep Washington Green Association, Inc., for distinguished service.

Woodsy Owl. Launched a cooperative project with the General Federation of Women's Clubs Juniors to promote Woodsy Owl Bicentennial Birthday Parties. A "birthday party sheet" with party hints and gift ideas, was printed and distributed. The objective is to encourage actions to improve the environment and make the "community and country a nicer place to live."

Printed and distributed a brochure titled, "Woodsy Owl on Hiking and Backpacking." This gives tips on safety and comfort for hikers and backpackers; also tells how to protect and to preserve the environment.

Promoted Woodsy Owl participation in "Romper Room" television shows. Personal appearances by Woodsy Owl on these shows will increase his recognition by young children and will help initiate their environmental education process.



RESTORATION OF FOREST LANDS AND IMPROVEMENTS  
(Permanent appropriation)  
(All operation and maintenance)

Permanent  
Full-Time  
Positions

Appropriation, 1975 .....	\$36,609	1
Estimate, 1976 .....	50,000	1
Estimate, transition quarter .....	(15,000)	
Estimate, 1977 .....	<u>50,000</u>	<u>1</u>

PROJECT STATEMENT

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
Restoration of forest lands and improvements .....	\$50,714	\$50,000	\$15,000	\$50,000	- -
Unobligated balance brought forward .	-62,777	-48,672	-48,672	-48,672	- -
Unobligated balance carried forward .	48,672	48,672	48,672	48,672	- -
Appropriation or estimate .....	36,609	50,000	15,000	50,000	- -

Recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers, who fail to complete performance of improvement, protection, or rehabilitation work required under the permit or timber sale contract, are used to cover the cost to the United States of completing such work on lands under Forest Service administration. Funds received as settlement of a claim are used for improvement, protection, or rehabilitation made necessary by the action which led to the cash settlement (Act of June 20, 1958, 16 USC 579c).



A-11-32a

PERMANENT APPROPRIATIONS  
Program and Financing (in thousands of dollars)

Identification code	1975 actual	1976 estimate	1977 estimate	1978 estimate
05-96-9999-0-2-302				
<b>Program by activities:</b>				
<b>Direct program:</b>				
1. Roads and trails for States, national forests fund .....	47,003	35,909	46,900	14,250
2. Brush disposal ...	26,382	31,029	12,079	27,494
3. Licensee programs, Forest Service ..	92	327	175	200
4. Restoration of forest lands and improvements ....	51	50	15	50
Total program costs, funded 1/ .....	73,528	67,315	59,169	41,994
Change in selected resources (undelivered orders) .....	-403	1,000	-2,179	1,975
10       Total obligations ..	73,125	68,315	56,990	43,969
<b>Financing:</b>				
21       Unobligated balance avail- able, start of period .	-26,058	-24,380	-25,274	-24,262
24       Unobligated balance avail- able, end of period ...	24,380	25,274	24,262	27,873
60 <u>Budget authority (appro-</u> <u>priation) (permanent,</u> <u>indefinite, special</u> <u>funds)</u> .....	71,447	69,209	55,978	47,580
(Mono cast: 22.14)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

A-11-32a

STANDARD FORM 300-T

June 1978, Office of Management and Budget  
Circular No. A-11, Revised.

PERMANENT APPROPRIATIONS

Program and Financing (in thousands of dollars) --continued

Identification code		1975 actual	1976 estimate	1977 estimate	1977 estimate
05-96-9999-0-2-302					
Distribution of budget authority by account:					
Roads and trails for States, national forests fund .....		47,003	35,909	46,900	14,250
Brush disposal .....		24,184	33,000	9,000	33,000
Licensee programs, Forest Service .....		223	250	63	280
Restoration of forest lands and improvements		37	50	15	50
Relation of obligations to outlays:					
71	Obligations incurred, net	73,125	68,315	56,990	43,969
72	Obligated balance, start of period .....	4,739	3,968	4,959	1,537
74	Obligated balance, end of period .....	-3,968	-4,959	-1,537	-4,028
90	Outlays .....	73,895	67,324	60,412	41,478
Distribution of outlays by account:					
Roads and trails for States, national forests fund .		47,003	35,909	46,900	14,250
Brush disposal .....		26,708	31,070	13,300	27,000
Licensee programs, Forest Service .....		134	295	195	178
Restoration of forest lands and improvements .....		50	50	17	50
1/ Includes capital outlay as follows: 1975, \$718 thousand; 1976, \$650 thousand; Transition Quarter, \$550 thousand; 1977, \$400 thousand.					
(Mono cast: 22.18)		(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)





DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
PERMANENT APPROPRIATIONS

A-11-34a

**STANDARD FORM 304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

Type size:  
178 M/72

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-9999-0-2-302				
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	6,703	7,862	1,810	7,650
11.3 Positions other than permanent.....	7,588	8,758	2,330	8,370
11.5 Other personnel compensation.....	1,448	1,653	395	1,600
11.8 Special personal services payments.....	9	10	5	10
<b>Total personnel compensation.....</b>	<b>15,748</b>	<b>18,283</b>	<b>4,540</b>	<b>17,630</b>
<b>Personnel benefits:</b>				
12.1 Civilian.....	1,406	1,637	430	1,590
13.0 Benefits for former personnel.....	7	8	2	.....
21.0 Travel and transportation of persons.....	358	415	105	415
22.0 Transportation of things.....	1,441	1,650	450	1,675
23.0 Rent, communications, and utilities.....	957	1,110	175	1,110
24.0 Printing and reproduction.....	132	100	25	155
25.0 Other services.....	50,556	42,202	50,828	18,449
26.0 Supplies and materials.....	1,473	1,695	285	1,715
31.0 Equipment.....	831	950	150	965
32.0 Lands and structures.....	302	360	55	350
<del>33.0 Investments and loans.....</del>				
<del>41.0 Grants, subsidies, and contributions.....</del>				
42.0 Insurance claims and indemnities.....	15	15	5	15
<del>43.0 Interest and dividends.....</del>				
44.0 Refunds.....	45	55	.....	.....
<del>44.6 Refunds.....</del>				
<b>Subtotal.....</b>	<b>73,271</b>	<b>68,480</b>	<b>57,050</b>	<b>44,069</b>
95.0 Quarters and subsistence charges.....	-146	-165	-60	-100
<b>99.0 Total obligations.....</b>	<b>73,125</b>	<b>68,315</b>	<b>56,990</b>	<b>43,969</b>

(Mono cast: 22.13)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5)







PAYMENT TO MINNESOTA (COOK, LAKE, AND ST. LOUIS COUNTIES)  
FROM THE NATIONAL FORESTS FUND  
 (Permanent appropriation)  
 (All operation and maintenance)

Appropriation, 1975 .....	\$259,038
Appropriation, 1976 .....	259,038
Transition quarter .....	(259,038)
Estimate, 1977 .....	65,000
Change from 1976 .....	<u>-194,038</u>

PROJECT STATEMENT

Project	1975	1976 estimate	Transition: quarter estimate	1977 estimate	Change from 1976
Payment to Minnesota from the National Forests Fund (appropriation or estimate) .....	\$259,038	\$259,038	\$259,038	\$65,000	-\$194,038

The Act of June 22, 1948, as amended (16 USC 577c-577h) provides that the Secretary of the Treasury, upon certification of the Secretary of Agriculture, shall pay to the State of Minnesota at the close of each fiscal year from any National Forest receipts not otherwise appropriated an amount equivalent to three-fourths of one percent of the fair appraised value of certain National Forest lands in the counties of Cook, Lake, and St. Louis situated within the Superior National Forest. The Act further provides that payment to the State shall be distributed to each of these counties in conformity with the fair appraised value of such National Forest lands in each county.

The Department of the Interior and Related Agencies Appropriation Act making funds available for the fiscal year ending June 30, 1976 and for the period ending September 30, 1976 (PL 94-165) provided that the period July 1 through September 30, 1976, shall be treated as a fiscal year for the purposes of computing and making payments under the provisions of this Act. Therefore, the payments to be made during the transition quarter (July 1-September 30, 1976) are based on National Forest receipts for the fiscal year ending June 30, 1976; and the payments to be made in fiscal year 1977 (October 1, 1976-September 30, 1977) are based on National Forest receipts for the transition quarter.



PAYMENTS TO COUNTIES, NATIONAL GRASSLANDS  
(Permanent appropriation)  
(All operation and maintenance)

Appropriation, 1975 .....	\$831,226
Estimate, 1976 .....	875,000
Estimate, transition quarter .....	(- -)
Estimate, 1977 .....	950,000
Change from 1976 .....	<u>+75,000</u>

PROJECT STATEMENT

Project	1975	1976 estimate	Transition quarter estimate	1977 estimate	Change from 1976
Payment to counties (appropriation or estimate) .	\$831,226	\$875,000	- -	\$950,000	+\$75,000

At the end of each calendar year, 25 percent of the revenues from use of submarginal lands are paid to counties under the provisions of Title III of the Bankhead-Jones Farm Tenant Act, approved July 22, 1937 (7 USC 1012). Payments are made on the provision that they are used for school or road purposes, or both.





PAYMENTS TO SCHOOL FUNDS, ARIZONA AND NEW MEXICO

(Permanent appropriation)

(All operation and maintenance)

Appropriation, 1975 .....	\$190,862
Estimate, 1976 .....	<u>76,827</u>
Transition quarter .....	(100,000)
Estimate, 1977 .....	<u>25,000</u>
Change from 1976 .....	<u><u>-51,827</u></u>

PROJECT STATEMENT

Project	1975	1976 estimate	Transition quarter estimate	1977 estimate	Change from 1976
Payments to school funds (appropriation or estimate) .....	\$190,862	\$76,827	\$100,000	\$25,000	-\$51,827

Under provisions of the Act of June 20, 1910 (36 Stat. 562, 573) certain areas within National Forests were granted to the States for school purposes. The percentage that these lands are of the total National Forest area within the State is used in determining payments to the States. The receipts from all National Forest land within the State are used as the basis for applying the percentage. For example, if total receipts for the State are \$100,000 and if 10 percent of lands are in the "granted for school purposes" category, the payment to the State would be \$10,000. The amounts so paid are deducted from the net receipts before computing the 25 percent payments to States.

As soon after the close of the fiscal year as the receipts from National Forests and the area of school lands in the States of Arizona and New Mexico are determined, the payments are made to the States. Payments in fiscal year 1975 to Arizona were \$189,494 and to New Mexico \$1,368.

The Department of the Interior and Related Agencies Appropriation Act making funds available for the fiscal year ending June 30, 1976 and for the period ending September 30, 1976 (PL 94-165) provided that the period July 1 through September 30, 1976, shall be treated as a fiscal year for the purposes of computing and making payments under the provisions of this Act. Therefore, the payments to be made during the transition quarter (July 1-September 30, 1976) are based on National Forest receipts for the fiscal year ending June 30, 1976; and the payments to be made in fiscal year 1977 (October 1, 1976-September 30, 1977) are based on National Forest receipts for the transition quarter.



PAYMENTS TO STATES, NATIONAL FORESTS FUND  
(Permanent appropriation)  
(All operation and maintenance)

Appropriation, 1975 .....	\$119,482,282
Estimate, 1976 .....	89,770,055
Transition quarter .....	(117,250,000)
Estimate, 1977 .....	35,600,000
Change from 1976 .....	<u>-54,170,055</u>

PROJECT STATEMENT

			Transition		Change
Project	1975	1976 estimate	quarter estimate	1977 estimate	from 1976
Payments to States (appropriation or estimate) .....	\$119,482,282	\$89,770,055	\$117,250,000	\$35,600,000	-\$54,170,055

The Act of May 23, 1908, as amended (16 USC 500) requires, with a few exceptions, that 25 percent of all money received from the National Forests during any fiscal year be paid to the States in which the forests are located, for the benefit of public schools and public roads of the county or counties in which such National Forests are situated. The amount of this appropriation varies each year in direct proportion to National Forest receipts during the previous fiscal year.

The Department of the Interior and Related Agencies Appropriation Act making funds available for the fiscal year ending June 30, 1976 and for the period ending September 30, 1976 (PL 94-165) provided that the period July 1 through September 30, 1976, shall be treated as a fiscal year for the purposes of computing and making payments under the provisions of this Act. Therefore, the payments to be made during the transition quarter (July 1-September 30, 1976) are based on National Forest receipts for the fiscal year ending June 30, 1976; and the payments to be made in fiscal year 1977 (October 1, 1976-September 30, 1977) are based on National Forest receipts for the transition quarter.

The amounts set aside from receipts collected from the sale of National Forest timber, grazing, special use permits, power mineral leases, and admission and user fees, before the 25 percent is applied are listed below:

- (1) Payment to the State of Minnesota covering certain National Forest lands in Counties of Cook, Lake, and St. Louis situated within the Superior National Forest is made under the terms of the Act of June 22, 1948, as amended (16 USC 577c-577h). Receipts collected from the areas covered by this Act are excluded when the 25 percent payment to the State of Minnesota is computed.
- (2) For lands in certain counties in Utah, Nevada, and California, the States receive 25 percent of receipts only after funds, if made available by Congress, have been set aside for the acquisition of National Forest lands within the specified National Forests under the terms of special acts authorizing appropriations from forest receipts for this purpose.
- (3) Payments to the States of Arizona and New Mexico under the provisions of the Act of June 20, 1910 (36 Stat. 562, 573), of shares of the gross receipts from the National Forests in those States which are proportionate to the areas of land granted to the States for school purposes within the National Forests.



PERMANENT APPROPRIATIONS  
Program and Financing (in thousands of dollars)

222









WORKING CAPITAL FUND  
(All capital investment)

The Working Capital Fund was established by the Act of August 3, 1956 (16 USC 579b), as amended by the Act of October 23, 1962 (16 USC 579b). It is a self-sustaining revolving fund which provides services to National Forests, Experiment Stations, and when necessary, to other Federal agencies, and as provided by law, to State and private agencies and persons who cooperate with the Forest Service in fire control and other authorized programs.

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>Change</u>
Permanent full-time positions .....	691	691	725	+34

An increase of \$8,613,000 in program level is proposed in fiscal year 1977, together with an increase of 34 permanent full-time positions. Total 1977 program level proposed is \$57.9 million.

The forestry related supply and support services provided by the Working Capital Fund in fiscal year 1975 included:

Equipment service which owns, operates, maintains, replaces and repairs common use motor driven and similar equipment. This equipment is rented to administrative units, i.e., National Forests, Experiment Stations and other units, and in some cases to other agencies, at rates which recover the cost of operation, repair and maintenance, management, and depreciation. The rates also include an increment which provides additional cash which, when added to depreciation earnings and the residual value of equipment, provides sufficient funds to replace the equipment.

Aircraft service which operates, maintains, and repairs Forest Service owned aircraft used in fire surveillance and suppression and in other Forest Service programs. The aircraft are rented to National Forests, Experiment Stations, and in some cases to other agencies, at rates which recover the cost of depreciation, operation, maintenance, repair, and improvements in the airworthiness of the aircraft. Aircraft replacement costs are financed from either appropriated funds or the Forest Service Working Capital Fund, or a combination of both.

Supply service which operates the following common services:

Central Supply which procures, stores, and issues grass seed to National Forests, Experiment Stations, and others at prices which recover costs.

Photo reproduction laboratories which store, reproduce, and supply aerial photographs, aerial maps, and other photographs of National Forest lands. The photographic reproductions are sold to National Forests, Experiment Stations, and others at cost.

Sign shops which manufacture and supply special signs for the National Forests for use in regulating traffic and as information to the public and other users of the National Forests. The signs are sold to National Forests and Experiment Stations at cost.

Subsistence which prepares and serves meals to Forest Service crews working in areas where adequate public restaurant facilities are not available.

Cribbing which manufactures special concrete structural material used in embankments for erosion control purposes along access roads in the National Forests. This material is sold to National Forests at prices which recover costs.



Nurseries which operate forest tree nurseries and cold storage facilities for storage of tree and seed stock and a seed extractory. Tree seed is procured, cleaned, bagged, and stored in refrigerated facilities. Tree and seed stock is sold to National Forests, States, and other Federal agencies at cost.

Volume of Business for the Various Major Activities  
of the Working Capital Fund  
(In thousands of dollars)

	1975 <u>Actual</u>	1976 <u>Estimate</u>	Transition Quarter <u>Estimate</u>	1977 <u>Estimate</u>
Equipment service .....	32,322	41,867	13,235	45,029
Aircraft service .....	1,512	1,712	726	1,879
Supply service .....	2,382	2,262	850	3,683
Nursery service .....	4,143	4,602	31	4,974
Total .....	<u>40,359</u>	<u>50,443</u>	<u>14,842</u>	<u>55,565</u>

The Working Capital Fund requires no cash appropriation. Initially, its assets were purchased by regular Forest Service appropriations and were donated to the fund.



## STANDARD FORM 300-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

## FOREST SERVICE

## WORKING CAPITAL FUND

Program and Financing (in thousands of dollars)

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-4605-0-4-302				
Program by activities:				
Forestry related supply and support:				
Operating costs, funded ..	33,282	36,409	11,429	40,593
Capital outlay, funded ...	11,860	12,850	6,304	16,927
Total program costs, funded .....	45,142	49,259	17,733	57,520
Change in selected resources	370	48	3,605	400
10 Total obligations .....	45,512	49,307	21,338	57,920
Financing:				
Receipts and reimbursements from:				
11 Federal funds:				
Revenue .....	-37,553	-45,695	-13,408	-50,400
Income provision for increased cost of equipment replacement .....	-2,404	-4,972	-1,440	-5,413
Unfilled customer's orders .....	-767	-185	-185	-185
14 Non-Federal sources:				
Proceeds from sale of equipment and other assets .....	-1,773	-1,673	-247	-1,922
21 Unobligated balance available, start of period .....	-5,855	-2,840	-6,058	.....
24 Unobligated balance available, end of period .....	2,840	6,058	.....	.....
Budget authority ..	.....	.....	.....	.....
(Mono cast: 22.12)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



## FOREST SERVICE

WORKING CAPITAL FUND

STANDARD FORM 300-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised. Program

Program and Financing (in thousands of dollars)--continued

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-4605-0-4-302				
<u>Relation of obligations to outlays:</u>				
71 Obligations incurred, net .....	3,015	-3,218	6,058	.....
72 Obligated balance, start of period ...	7,656	2,375	9,096	12,192
74 Obligated balance, end of period .....	-2,375	-9,096	-12,192	-13,692
90 Outlays .....	8,297	-9,939	2,962	-1,500
(Memo cast: 22.12)	(Memo cast: 5.9)	(Memo cast: 5.9)	(Memo cast: 5.9)	(Memo cast: 5)





DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
WORKING CAPITAL FUND

A-11-34a

**STANDARD FORM 304-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103T

**OBJECT CLASSIFICATION (in thousands of dollars)**

Identification code	1975 actual	1976 estimate	Transition Quarter estimate	1977 estimate
05-96-4605-0-4-302				
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	7,838	8,605	2,120	9,135
11.3 Positions other than permanent.....	4,203	4,645	1,225	5,050
11.5 Other personnel compensation.....	456	505	135	565
11.8 Special personal services payments.....	6	5	60	10
<b>Total personnel compensation.....</b>	<b>12,503</b>	<b>13,760</b>	<b>3,540</b>	<b>14,760</b>
<b>Personnel benefits:</b>				
12.1 Civilian.....	1,172	1,305	315	1,405
<del>13.0 Benefits for former personnel.....</del>				
21.0 Travel and transportation of persons.....	233	295	70	300
22.0 Transportation of things.....	183	215	200	240
23.0 Rent, communications, and utilities.....	837	935	200	1,100
24.0 Printing and reproduction.....	32	40	10	50
25.0 Other services.....	5,791	4,300	4,147	7,585
26.0 Supplies and materials.....	13,644	15,870	6,160	17,900
31.0 Equipment.....	11,143	12,615	6,700	14,600
32.0 Lands and structures.....	14	15	5	20
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	2	3	.....	5
42.0 Insurance claims and indemnities.....	3	3	1	5
<del>43.0 Interest and dividends.....</del>				
44.0 Refunds.....	1	1	.....	.....
<b>Subtotal.....</b>	<b>45,558</b>	<b>49,357</b>	<b>21,348</b>	<b>57,970</b>
95.0 Quarters and subsistence charges.....	-46	-50	-10	-50
<b>99.0 Total obligations.....</b>	<b>45,512</b>	<b>49,307</b>	<b>21,338</b>	<b>57,920</b>
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



## Personnel Summary

**STANDARD FORM 300-T**  
June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

228







## COOPERATIVE WORK, FOREST SERVICE (TRUST FUND)

Contributions are received from cooperators, including counties, States, timber sale operators, individuals, and associations, and are expended by the Forest Service in accordance with the terms of the applicable cooperative agreements. The work consists of protection and improvement of the National Forests, work performed for National Forest users, and forest investigations and protection, reforestation, and administration of private forest lands.

The major programs conducted under this account are described below in terms of the projects reflected in the statement at the end of this section.

- (1) Construction and Maintenance of Roads and Trails, and
- (2) Construction and Maintenance of Other Improvements.

Under the Acts of June 30, 1914 (16 USC 498) and March 3, 1925, April 24, 1950 (16 USC 572) and October 13, 1964 (16 USC 537) deposits for cooperative work are accepted from State and local government agencies, associations, Federal timber purchasers, users of roads, and others for the construction and maintenance of roads, trails, and other improvements and for performing work which is the National Forest users' responsibility, this method of performance of the work being of mutual benefit or of benefit to the public at large. Cooperative deposits received for wildlife habitat improvement for States from their hunting and fishing fees are included in this activity.

- (3) Protection of National Forest and Adjacent Non-Federal Lands. The Act of June 30, 1914 (16 USC 498) authorizes the acceptance of contributions for the protection of the National Forests and the Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572), authorizes the acceptance of deposits for the protection of non-Federal lands in or near the National Forests. The arrangement for the protection of private lands from fire helps both parties since there are millions of acres of non-Federal forest land intermingled with Federal ownership on the National Forests. The lands in non-Federal ownership are usually in small tracts. It would be uneconomical for the owner to set up a fire control organization for the protection of his land. The advantage to the Government is that in many cases it would be necessary to suppress the fires on the non-Federal land without reimbursement in order to protect the adjoining Federal land.
- (4) Sale Area Betterment (including reforestation). Section 3 of the Act of June 9, 1930 (16 USC 576b) provides for deposits of funds by timber sale purchasers to cover the cost of reforestation and special cultural measures to improve the future stand of timber on the areas cutover by the purchaser. Accomplishments under this program are reported under the Forest land management subappropriation along with accomplishments for reforestation and stand improvement for that subappropriation.
- (5) Scaling. Under provisions of the Act of April 24, 1950 (16 USC 572) and of Section 210 of the Act of September 21, 1944 (16 USC 572a) acceptance of deposits from timber purchasers for cooperative scaling service is authorized. Such arrangements are established only when requested by the operator and when the operator pays the extra cost of such services, either in advance or through reimbursement under appropriate payment guarantees.
- (6) Research Investigations. The Acts of June 30, 1914 (16 USC 498) and May 22, 1928 (16 USC 581i-1) authorize the acceptance of deposits for forestry research. Deposits are received from State and other public agencies, and from industrial, association, and other private agencies to finance research projects of mutual interest and benefit to both parties. The deposits may be made either in a single sum or on a continuing basis, and may either partially or wholly cover the cost of the research. The cooperative research projects may involve any aspect of forestry and vary widely as to scope and duration.





A very common example of such cooperation is for a State to make a deposit to the Cooperative work fund in order to intensify or to speed up completion of a comprehensive survey of the forest resources of the State. Other examples are State contributions toward forest fire research. The results of such cooperative investigations are made available to the general public as well as to the depositor.

- (7) Administration of Non-Federal Lands. The Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572) authorizes the acceptance of deposits for the administration of non-Federal lands. These deposits are made by non-Federal owners having land intermingled with or adjacent to National Forests who wish these lands managed in accordance with good forest management practices. Their holdings are usually too small to warrant the employment of professional foresters to administer such tracts. The advantages to the Government include the avoidance of possible high fire hazard areas resulting from improper cutting practices, the elimination of the necessity of precisely marking the boundaries of the private land, and additional private forest land handled under proper forest practices.
- (8) Reforestation (private lands). The Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572) authorizes the acceptance of deposits for reforestation of non-Federal lands situated within or near a National Forest. This work is limited to areas of non-Federal land within a planting project on the National Forests or to areas in which certain civic and other public-spirited organizations have taken an interest.
- (9) Statement on Utilization of Funds. Following is a statement of funds received and obligated and balances available by major activities:



COOPERATIVE WORK, FOREST SERVICE--Trust Fund

Project	Balance Available June 30, 1974:	Actual Fiscal Year 1975		Estimate Fiscal Year 1976		Estimate Transition Quarter		Estimate Fiscal Year 1977	
		Funds Received	Obligations: Balance	Funds Received	Obligations: Balance	Funds Received	Obligations: Balance	Funds Received	Obligations: Balance
1. Construction and maintenance of roads and trails	\$10,180,733:	\$10,351,170:	\$9,491,384:	\$11,040,519:	\$12,515,000:	\$14,100,000:	\$9,455,519:	\$12,515,000:	\$11,100,000:
2. Construction and maintenance of other improvements:	1,096,930:	1,245,632:	1,232,396:	1,110,166:	1,300,000:	2,061,000:	349,166:	300,000:	1,600,000:
3. Protection on National Forests and adjacent land:									
(a) Fire .....	676,666:	2,998,659:	2,992,436:	682,889:	2,500,000:	2,890,000:	292,889:	600,000:	2,765,000:
(b) Other .....	3,406,423:	2,740,788:	2,983,651:	3,163,560:	2,800,000:	3,615,000:	2,348,560:	630,000:	3,400,000:
4. Sale area betterment on National Forest lands (including reforestation) .....	76,451,928:	39,225,174:	41,718,346:	73,958,756:	51,500,000:	63,244,000:	62,214,756:	11,300,000:	52,237,000:
5. Sealing of timber	265,959:	1,240,172:	1,229,359:	276,772:	1,500,000:	1,550,000:	226,772:	200,000:	1,300,000:
6. Research investigations .....	732,289:	1,044,519:	967,822:	808,986:	700,000:	1,032,782:	476,204:	150,000:	1,000,000:
7. Administration of private lands ..	23,156:	62,854:	54,308:	31,702:	75,000:	80,000:	26,702:	20,000:	50,000:
8. Reforestation (private lands)	56,007:	41,733:	13,771:	83,969:	10,000:	62,000:	31,969:	-	15,000:
9. Service for foreign governments .....	-	2,320:	102:	2,218:	-	2,218:	-	-	-
Total .....	92,890,091:	58,953,021:	60,683,575:	91,159,537:	72,900,000:	88,637,000:	75,422,537:	16,000,000:	73,467,000:

NOTE: Balances carried forward are due primarily to necessity of deferring work for which funds are deposited until the most practicable time for accomplishment. For instance, funds for sale area betterment are received in advance of timber cutting, but work cannot be started until cutting operations are completed. The time lag sometimes extends for several years, depending on the amount of preparatory work required in the sale area and weather conditions.

Above obligations for 1975 include refunds to cooperators in the amount of \$430,786.

	1975	1976	1977	Change
Permanent full-time positions ..	1,429	1,554	1,554	-



A-11-32a

COOPERATIVE WORK (TRUST FUND)

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

Program and Financing (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	19 77 estimate	19 77 estimate
05-96-8028-0-7-302				
<u>Program by activities:</u>				
1. Construction and main- tenance of roads and trails .....	10,898	14,650	3,860	10,000
2. Construction and main- tenance of other improvements .....	1,422	2,000	500	1,500
3. Protection of national forest and adjacent private land .....	6,025	6,790	2,400	6,015
4. Sale area betterment and scaling :.....	43,230	61,046	17,900	48,837
5. Research investigations	970	1,000	200	950
6. Administration .....	30	75	20	50
7. Reforestation .....	13	60	20	15
Total program costs, funded 1/.....	62,588	85,621	24,900	67,367
Change in selected resources (undelivered orders) ..	-1,904	3,016	-8,900	6,100
10 Total obligations ....	60,684	88,637	16,000	73,467
<u>Financing:</u>				
21 Unobligated balance avail- able, start of period .	-92,890	-91,160	-75,423	-75,423
24 Unobligated balance avail- able, end of period ...	91,160	75,423	75,423	74,856
60 <u>Budget authority (appro- priation) (permanent, indefinite) .....</u>	58,953	72,900	16,000	72,900



## FOREST SERVICE

## COOPERATIVE WORK (TRUST FUND)

STANDARD FORM 300-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.

## Program and Financing (in thousands of dollars)--continued

Identification code		1975 actual	1976 estimate	1977 estimate	1977 estimate
05-96-8028-0-7-302					
Relation of obligations to outlays:					
71	Obligations incurred, net	60,684	88,637	16,000	73,467
72	Obligated balance, start of period .....	2,440	2,890	5,527	1,527
74	Obligated balance, end of period .....	-2,890	-5,527	-1,527	-3,694
90	Outlays .....	60,234	86,000	20,000	71,300

1/ Includes capital outlay as follows: 1975, \$2,351 thousand; 1976, \$3,200 thousand, Transition Quarter, \$950 thousand; 1977, \$2,800 thousand.

(Mono cast: 22.12)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5.9)

(Mono cast: 5)





## FOREST SERVICE

## COOPERATIVE WORK (TRUST FUND)

STANDARD FORM 304-T

June 1975, Office of Management and Budget  
Circular No. A-11, Revised.  
304-103TType size:  
178 M6/22

## OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	19 75 actual	19 76 estimate	Transition Quarter estimate	19 77 estimate
05-96-8028-0-7-302				
<b>Personnel compensation:</b>				
11.1 Permanent positions.....	17,938	20,290	4,020	18,750
11.3 Positions other than permanent.....	13,046	15,070	3,645	13,500
11.5 Other personnel compensation.....	1,089	1,295	250	1,250
11.8 Special personal services payments.....	1	5	.....	5
<b>Total personnel compensation.....</b>	<b>32,074</b>	<b>36,660</b>	<b>7,915</b>	<b>33,505</b>
<b>Personnel benefits:</b>				
12.1 Civilian.....	3,055	3,450	755	3,150
13.0 Benefits for former personnel.....	5	5	1	.....
21.0 Travel and transportation of persons.....	622	790	160	850
22.0 Transportation of things.....	2,287	2,845	635	3,300
23.0 Rent, communications, and utilities.....	1,637	1,990	350	2,350
24.0 Printing and reproduction.....	40	60	10	60
25.0 Other services.....	10,117	28,617	3,219	14,527
26.0 Supplies and materials.....	5,769	7,900	1,370	8,300
31.0 Equipment.....	892	1,035	195	1,300
32.0 Lands and structures.....	3,934	5,100	1,400	5,700
<del>33.0 Investments and loans.....</del>				
41.0 Grants, subsidies, and contributions.....	6	.....	.....	10
42.0 Insurance claims and indemnities.....	12	10	2	15
<del>43.0 Interest and dividends.....</del>				
44.0 Refunds.....	441	400	43	625
<b>Subtotal .....</b>	<b>60,891</b>	<b>88,862</b>	<b>16,055</b>	<b>73,692</b>
95.0 Quarters and subsistence charges .....	-207	-225	-55	-225
<b>99.0 Total obligations.....</b>	<b>60,684</b>	<b>88,637</b>	<b>16,000</b>	<b>73,467</b>
(Mono cast: 22.13)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5.9)	(Mono cast: 5)



DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
COOPERATIVE WORK (TRUST FUND)  
Personnel Summary

235





